

UNESCO World Heritage Centre – IUCN

MISSION REPORT



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**World Heritage Centre/IUCN Reactive Monitoring mission
to the World Heritage property
“Natural System of Wrangel Island Reserve”
(Russian Federation)**

December 2017

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LIST OF ACRONYMS

Appr.	Approximately
EIA	Environmental Impact Assessment
EMOH	Eastern Marine Operations Headquarters
FSBWIR	Federal State Budget Institution “State Nature Reserve “Wrangel Island””
IFC	International Finance Corporation (World Bank Group)
IMO	International Maritime Organization
IUCN	International Union for Conservation of Nature
M	Million
MC	Ministry of Culture of the Russian Federation
MNRE	Ministry of Natural Resources and Environment of the Russian Federation
NGO	Non-Governmental Organization
NSRA	Northern Sea Route Administration
NSWIR	Natural System of Wrangel Island Reserve (Russian Federation)
OG	Operational guidelines
OUV	Outstanding Universal Value
Rb	Rouble
SEA	Strategic Environmental Assessment
UNEP-WCMC	UN Environment World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organisation
USD	United States Dollar
WHC	UNESCO World Heritage Centre

ACKNOWLEDGEMENTS

The mission team thanks the Permanent Delegation of the Russian Federation to UNESCO, the National Commission of the Russian Federation for UNESCO, the Ministry of Natural Resources and Environment (MNRE) as well as the Ministry of Culture (MC) for the organisation of this mission.

It should be noted that the organisation of a mission to the World Heritage property “Natural System of Wrangel Island Reserve” (NSWIR) – the northernmost property on the World Heritage List – requires special attention to logistic and weather constraints. In this respect, the mission would like to extend its thanks to the Ministry of Natural Resources and Environment of the Russian Federation (MNRE), the Ministry of Culture of the Russian Federation (MC) as well as the Federal State Budget Institution “State Nature Reserve “Wrangel Island”” (FSBWIR) for the excellent coordination and warm hospitality.

The mission also thanks Mr Vladimir Medinsky, Minister of Culture of the Russian Federation, as well as Mr Nikolaev Leonid Anatolievich, Vice-Governor of the Chukotka Autonomous Okrug for their warm welcome.

The team is also grateful to Ms Irina B. Forminykh, Deputy Director of the Department of International Cooperation, Ministry of Natural Resources and Environment of the Russian Federation, Mr Amirhan Amirhanov, First State Inspector, Federal Service for Supervision of Natural Resource Usage of the Russian Federation and Alexander Gruzdev, Director of the Federal State Budget Institution “State Nature Reserve “Wrangel Island”” (FSBWIR) for investing a considerable amount of time for the discussions and field visits with the mission team and for the provision of detailed information during and after the mission. Furthermore, the mission wishes to extend its gratitude to Mr Pavel Tsarkov, Ministry of Culture of the Russian Federation (MC), for the excellent preparation and support before and throughout the mission.

Finally, the mission wishes to also thank all staff members involved in the swift organisation of the mission. Each of them contributed significantly to support the work of the mission to enable it to report on the evolution of the property’s situation since its inscription in 2004.

EXECUTIVE SUMMARY AND RECOMMENDATIONS

The World Heritage property “Natural System of Wrangel Island Reserve” (NSWIR) is characterised by a remarkably high level of biodiversity, unique in the Arctic. In 2004, NSWIR was inscribed on the World Heritage List under criteria (ix) and (x).¹ Concerns about the property’s **management** and **metal garbage** were identified at the time of inscription and the World Heritage Committee expressed further concerns since 2015 over the construction of **military facilities** within the property’s boundaries, **oil exploration** activities close to these boundaries, the development of **tourism** infrastructure and an associated increase in human presence on Wrangel Island.

Consequently, in 2015 and in 2016, the World Heritage Committee requested the State Party to invite a **joint World Heritage Centre/IUCN Reactive Monitoring mission** to assess the state of conservation of the property, evaluate current and potential impacts from the construction of facilities within the property and oil exploration activities in the vicinity of the property and to assess whether such impacts would invoke paragraph 180 of the *Operational Guidelines* (OG) on criteria for the inscription of natural World Heritage properties on the List of World Heritage in Danger.² Upon invitation by the State Party, the reactive monitoring mission was undertaken between 10 and 18 August 2017. The mission based its findings on the review of documents, meetings with relevant authorities and field visits.

The mission regrets that it was not possible to access all areas relevant for the assessments required by the World Heritage Committee, in particular the area of the former village of Ushakovskoye where the new **military facilities** have been built. While some oral reports by the site manager suggest potential positive effects for conserving NSWIR and that negative impacts would remain limited, the mission has no basis upon which it could assess the impacts of these military facilities and associated activities on the OUV of the property. Therefore, it is not possible to confirm that the military presence does not represent an ascertained danger to the OUV. Given the fragility of the Arctic ecosystem of NSWIR and its status as Strict Nature Reserve, the mission considers that, in principle, military activities should not be conducted within the boundaries of the property.

As for **oil exploration** activities, the mission welcomes that the licenses for the subsoil plots of Yuzhno-Chukotski, Severo-Vrangelski-1 and -2 do not intersect with the property’s boundaries. However, the mission notes with utmost concern their location and extent, partly overlapping with the 36 nautical mile protective zone around the property, the reported negative impacts from seismic prospecting and that the licenses include the right to produce hydrocarbon raw materials. The mission notes that any hydrocarbon exploitation in the vicinity of the property would present serious risks to its integrity, as any pollution could be transported quickly to the site through the ocean currents and winds. These risks are further exacerbated by the fact that hydrocarbon exploitation in the arctic presents specific ecological challenges and limits the possibility for quick and efficient intervention in case of an accident due to the prevailing environmental and meteorological conditions. These risks will need to be evaluated and quantified carefully through an EIA, conducted to the highest international standards and taking into account the 2012 IFC Performance Standards on Environmental and Social Sustainability³ as well as the IUCN Advice Note on Environmental Assessment⁴ and submitted to World Heritage Centre for review by IUCN before taking a decision. The mission considers

¹ <http://whc.unesco.org/en/criteria>

² see also section 1 and Annex I

³ IFC (2012)

⁴ IUCN (2013)

that a decision to go forward with the envisaged exploitation without prior EIA would represent a potential danger to the property, in accordance with paragraph 180 of the OG, i.e. a case for inscription on the List of World Heritage in Danger.

As for **tourism**, the mission considers that FSBWIR should not go beyond current visitor numbers as long as the cumulative impacts of the other mentioned factors remain unclear and as long as staffing for the conservation work remains insufficient.

Concerning issues raised already at the time of inscription, the mission welcomes straightforward and clear-cut boundary delineation of the property, underpinned by respective regulations. The mission particularly commends the establishment of a 36 nautical mile **protective zone** encircling Wrangel and Herald islands. It acknowledges achievements in the **management** of NSWIR since its inscription, but considers that significant improvements are still required.

As for metal **garbage** however, the mission notes, with serious concern, the vast amount still remaining on Wrangel Island. While the mission appreciates the reported efforts of the reserve's staff, and arguably the military, in cleaning up the island, it regrets that 13 years after inscription, sufficient improvements of the situation cannot yet be recognised in the areas visited.

Furthermore, the mission identifies the likely increase in **marine traffic** along the North-eastern passage as a potential threat in the future for which robust environmental governance and intervention capacity should be developed collaboratively at regional, national and international levels before any threat becomes pertinent.

Taken together, the mission raises serious concerns about the **cumulative impacts** of all these factors, which are trending to intensify in the future. Impacts of **climate change** further exacerbate the pressure on the ecosystem. Therefore, the mission stresses the importance of systematic monitoring of climate change in conjunction with a mitigation of the cumulative impacts.

On a general note, the mission regrets the limited provision of information over the past years in response to the requests of the World Heritage Committee and as required by paragraph 172 of the *Operational Guidelines*. Therefore, the mission encourages the State Party to strengthen its reporting within the Reactive Monitoring process and recommends the World Heritage Committee to urgently request action from the State Party to address the insufficient level of **information within the past two years' period**, in particular providing information on the impacts of the military facilities and activities, any further constructions and tourism developments as well as on resource exploration and potential exploitation activities.

Currently, it is recommended that the property is not placed on the List of World Heritage in Danger, on the conditions that:

- **the military presence within the boundaries of the property is proven not to constitute an ascertained danger to its OUV, and**
- **no hydrocarbon exploitation is pursued without a prior EIA in line with IFC 2012 performance standards and a rigorous assessment of the impacts on the property, in line with the IUCN Advice Note on Environmental Assessment,**

which is to be assessed by a joint World Heritage Centre/IUCN Reactive Monitoring to the property to take place in 2021.

Key recommendations:

In order to address potential and ascertained dangers to the Outstanding Universal Value (OUV) of the property, and in view of the provisions for inclusion of World Heritage properties on the List of World Heritage in Danger, the mission recommends the State Party to:

- 1.** Provide more detailed information on current and potential impacts of **military facilities and activities** on the property's OUV in the next report to the World Heritage Committee, immediately halt any activities that may negatively affect the OUV and employ mitigation measures to prevent or at least minimise the impacts of military facilities and activities;
- 2.** Carefully assess and address the risks of all **hydrocarbon exploration** activities and potential hydrocarbon **exploitation** in proximity to the property and specifically
 - a) provide more detailed information on the current, planned and already undertaken hydrocarbon exploration and/or exploitation activities within the licenses of "Severo-Vrangelski -1", "Severo-Vrangelski -2" and "Yuzhno-Chukotski" " in the next report to be examined by the World Heritage Committee in 2018,
 - b) ensure that the 36 nautical miles protective zone around the property is excluded from the current licenses,
 - c) complete an EIA on hydrocarbon exploration and exploitation respecting IFC 2012 performance standards⁵ and the IUCN Advice Note on Environmental Assessment prior to any exploratory and permanent drilling activities, with a view to withdrawing from those license areas and/or activities that are proven to represent a potential danger to the OUV of the property, and
 - d) develop and implement a strong oil spill emergency response scheme, in collaboration with regional, national and global actors and governments prior to any exploratory and permanent oil drilling activities and marine transport of hydrocarbons.

In order to ensure the integrity and values of the property in the future, the mission recommends the State Party to:

- 3.** Identify the ecological **carrying capacity** of the World Heritage property with respect to human impacts and taking into account the impacts of climate change, through a study on the terrestrial and marine components of the property to establish a critical upper ceiling for human impacts and a pivotal point for decision-making, which should determine
 - a) the regulation of overall human presence (including military personnel and associated staff, reserve staff, researchers, tourists, weather station staff, etc.),
 - b) spatial zoning and season-sensitive regulation of human activities, and
 - c) an overall tourism strategy for the property, which could be the basis for a reflection on an overall policy of tourism development for the Chukotka Region, promoting its rich natural and cultural heritage;
- 4.** Complete the **removal of garbage** and clean-up of associated contaminants within the next five years, and report within the state of conservation reporting process on the planning and implementation for the clean-up of man-made waste, including environmental monitoring data to confirm the remediation of contaminations from the polluted areas;

⁵ IFC (2012)

5. Develop a strong environmental governance of any future increase of **marine traffic** in proximity to the property, including an emergency response scheme specifically for the property.

In order to continuously improve the management of the property, the mission recommends the State Party to

6. Immediately review and report on the implementation of the **current management plan** and the action plan included therein;
7. Complete and submit to the World Heritage Centre for review, a **revised management plan**, including an updated action plan and a tourism management plan, addressing past and current management issues and providing for adequate financial and human resources to achieve on-going management goals for the entire property (including terrestrial and marine components);
8. Ensure full compliance with the Federal State Budget Institution “State Nature Reserve “Wrangel Island” (FSBWIR) “**rules of behaviour**” of all persons at the property, including management and staff, researchers, military personnel and all visitors;
9. Continue and strengthen **monitoring** at the property, and in particular,
 - a) extend monitoring to the **marine component** of the property, and
 - b) systematically assess and monitor the **impacts of climate change**,in order to accumulate a strong baseline of data, which will provide reliable and relevant information on the state of conservation and tendencies of species and ecosystems as relevant to the OUV of the property and which may be examined and potentially integrated with monitoring that is being conducted across the Arctic, including in other Arctic protected areas.

1. BACKGROUND TO THE MISSION

Situated in the East Siberian Sea and the Sea of Chukchi on the 180° meridian at 71° North, the UNESCO World Heritage property “Natural System of Wrangel Island Reserve” (NSWIR) boasts a predominantly undisturbed ecosystem characterised by a remarkable level of biodiversity, which is unique in the Arctic. This is recognised through its inscription on the UNESCO World Heritage List under criteria (ix) and (x).⁶

In response to concerns over constructions within the property and oil exploration activities around the property, the UNESCO World Heritage Committee requested the State Party to invite a joint World Heritage Centre/IUCN Reactive Monitoring mission to NSWIR (see Decisions **39 COM 78.25** and **40 COM 7B.98**). The mission was eventually organised in August 2017.

The mission had the objective to assess the state of conservation of the property and to evaluate whether the current and potential impacts of on-going and planned construction of facilities within the property, as well as associated increases in human presence, on the Outstanding Universal Value (OUV) of the property represent a potential danger to the property, in accordance with Paragraph 180 of the *Operational Guidelines* (OG). In addition, specific assessments to be addressed through the Reactive Monitoring mission were related to on-going or planned oil exploration activities, and status of environmental impact assessments for facilities and oil exploration.⁷

To facilitate the assessment of the state of conservation of NSWIR, the mission met with key stakeholders on federal, regional and local levels in Pevek, on Wrangel Island and in Anadyr (Chukotka Autonomous Region). On Wrangel Island, the mission undertook field trips to coastal, riverine and mountain areas in the south-western and southern part of the island and visited new field stations for tourists and park staff as well as their surroundings.

This report presents the findings of the mission team, which has undertaken this joint World Heritage Centre/IUCN Reactive Monitoring mission, providing recommendations to the State Party and the World Heritage Committee. While this chapter describes in more detail the background of NSWIR’s inscription and its state of conservation history, section 2 outlines the legal framework for conservation and management as relevant to NSWIR. The mission’s observations concerning the conservation and management of the property are provided in section 3, and provide the basis for informing section 4, in which the property’s state of conservation is assessed. Section 5 summarises this assessments and provides an overview of the mission’s recommendations.

1.1 Inscription history

In 2000, the property was nominated for inscription on the World Heritage list under the name “The Natural System of Wrangel Island Sanctuary”. In 2002, IUCN sent an evaluation mission; however, prior to the 27th session of the World Heritage Committee (Paris, 2003), the State Party withdrew this nomination to review boundary issues. In 2004, a revised nomination was submitted to the World Heritage Centre. The important change in the revised nomination was that the boundaries of the marine component identified in the original nomination had been

⁶ <http://whc.unesco.org/en/criteria>

⁷ see Annex I

reduced from 24 to 12 nautical miles. As the revised nomination of 2004⁸ did not include substantive changes from the original 2000 version, a second IUCN evaluation mission was not required. In 2004, the “Natural System of Wrangel Island Reserve” was inscribed on the World Heritage List on the basis of what were then natural criteria (ii) and (iv)⁹.

The area inscribed as NSWIR in 2004 consists of a terrestrial and a marine component. The terrestrial component comprises Wrangel Island (7 608.7 km²) and the significantly smaller Herald Island (11.3 km²). The marine component encircles both islands by a strip of 12 nautical miles. The respective ocean territories of Wrangel and Herald are not connected. The coastal waters along the southern coast of Wrangel Island, between the mouth of Predator River and Cape Hawaii, are excluded from the marine component (see section 3.1, see also map 1).

The IUCN evaluation of 2004 describes the ecological processes recognised under criterion (ix) as characterised by a self-contained island ecosystem that has undergone a long evolutionary process, which has not been interrupted by glaciation during the Quaternary period. Wrangel’s rich natural history and its unique evolutionary status within the Arctic is exemplified by the number and type of endemic plant species, the diversity within plant communities, the rapid succession and mosaic of tundra types, the presence of relatively recent mammoth tusks and skulls and the range of terrain types and geological formations in the small geographic space.¹⁰

The property’s biodiversity and threatened species are recognized under criterion (x). Having the highest level of biodiversity in the high Arctic, Wrangel Island is the breeding habitat of Asia’s only Snow goose population and the feeding ground for the Gray whale migrating from Mexico (e.g. from the World Heritage property “Whale Sanctuary of El Vizcaino”, see also Speer *et al.*, 2017). Wrangel and Herald islands serve as the world’s northernmost nesting grounds for over 100 migratory bird species, out of which several are endangered. Furthermore, Wrangel and Herald islands have the highest density of ancestral polar bear dens and the largest population of Pacific walrus. Thanks to a high diversity of different conditions, habitats and micro-climates, total reproductive failure of a species in any given year is practically unheard of.

A number of integrity issues were raised by IUCN at the time of inscription.¹¹ The issues, as raised by IUCN, primarily related to protection and management; however, boundary considerations were also noted. Through the technical evaluation, IUCN identified that there was no management plan and implementation strategy for the property, therefore, IUCN recommended that the World Heritage Committee request the State Party to develop a plan and implementation strategy that included: financial and human resources policies and budgets; a tourism and visitor strategy; identification of resources for assets, goods and services (technical and management communications, alternate energy supply, and transportations); description and implementation of a monitoring and research programme; options for preserving cultural and paleontological features; and a plan to remove debris from Doubtful Village. IUCN further recommended extending the marine component of the site a further 12 nautical miles (as included in the original 2000 version of the nomination).

Additional references to integrity issues included a lack of guidance in “Rules of Behaviour” for the protection of flora, geological formations or cultural values; no human resources plan for

⁸ Directorate of Wrangel Island Reserve (2003)

⁹ Today criteria (ix) and (x). For ease of reference, this report subsequently uses only the current nomenclature of World Heritage criteria (see *Operational Guidelines* and <http://whc.unesco.org/en/criteria>).

¹⁰ IUCN (2004)

¹¹ IUCN (2004)

the site; vehicles and communications that were constantly breaking down and creating serious safety concerns; serious problems with management communications with the Reserve's Headquarters in Moscow; required upgrading of facilities should tourism increase; and mitigation measures for human disturbance to wildlife. IUCN further noted that there was no long term monitoring plan for climate and that it was imperative that both research and monitoring at the reserve be improved and linked to other Arctic programmes.

Accordingly, in its Decision **28 COM 14B.14**, the World Heritage Committee requested that the State Party urgently prepare a management plan and implementation strategy, which would include, among others, the following points (which are also discussed in section 3):

- technical and management communications;
- a tourism and visitor strategy;
- options for alternative energy supply;
- transportation;
- a monitoring and research programme;
- options to preserve the site's cultural and paleontological features;
- a human resources policy for the staff working at the site; and
- a plan to remove unwanted debris from Doubtful Village.

The Committee also encouraged the State Party to consider the extension of the ocean territory of the property by a further 12 nautical miles, as it was already proposed by the Government of the Chukotka Autonomous Region in 1999¹² (see also section 3.1).

1.2 State of Conservation history

The state of conservation of NSWIR, as examined by the World Heritage Committee since 2008, has two thematic threads: (1) issues of management since 2008 and (2) emerging threats of constructions and resource explorations.

(1) **Management deficiencies** identified at the time of inscription in 2004 (Decision **28 COM 14B.14**, see above) had not been sufficiently addressed as of 2008.

The World Heritage Committee regretted at its 32nd session (Quebec City, 2008) that there had been no reported progress made in implementing Decision **28 COM 14B.14**. It requested the State Party to complete the management plan for the property before its 33rd session in 2009 (see Decision **32 COM 7B.26**).

Subsequently, the State Party submitted a report on the state of conservation of the property and annexed a copy of the newly completed "Wrangel Island Nature Reserve Mid-Term management plan for 2009-13". At its 33rd session in 2009, the Committee requested the State Party, *inter alia*, to confirm that the necessary ministerial approval and adequate finance were in place for the implementation of the management plan, also in relation to infrastructure, an increase in security and inspection staff as well as an effective monitoring system, considering climate change impacts on the property. It also encouraged the State Party to develop and implement a plan for public use within the property and requested the State Party to submit a report on the state of conservation of the property, including a report on the status of its ecosystems and an assessment of the impacts of climate change, for examination at its 36th session (Saint Petersburg, 2012) (see Decision **33 COM 7B.30**).

¹² World Heritage Centre (2014)

At its 36th session in 2012, and based on the State Party's report on the state of conservation of the property, the Committee reiterated its request to the State Party to ensure that ministerial approval and adequate finance were in place for the implementation of the Management Plan and to establish an effective monitoring system that includes potential climate change impacts on the property. It welcomed the efforts to increase inspection, monitoring and waste removal from the property. Plans to develop further tourism infrastructure and increase visitation to the island were noted. In response, the Committee urged the State Party to develop and implement an effective plan for tourism use within the property and to conduct an EIA (see Decision **36 COM 7B.20**).

(2) Since 2015, the Committee identified **emerging issues of constructions and exploration for hydrocarbons**, which might pose threats to the property, potentially invoking paragraph 180 of the *Operational Guidelines* (OG). These issues could result in NSWIR being included on the List of World Heritage in Danger.

In its Decision **39 COM 7B.25**, the Committee firstly expressed its concern over the apparent beginning of construction of a military base within the property, regretted the lack of information as required by Paragraph 172 of the OG and urged the State Party to immediately halt any construction works within the property until the potential impacts are fully assessed and suitable measures to avoid deterioration of the OUV of the property are in place. Secondly it noted, with serious concern, reported oil exploration activities undertaken by Rosneft in proximity of the property and reiterated its position that oil exploration or exploitation is incompatible with World Heritage status. To assess the impacts of these activities as well as other planned activities, the Committee requested the State Party to undertake Environmental Impact Assessments (EIAs), in line with IUCN's World Heritage Advice Note on Environmental Assessment and to invite a joint World Heritage Centre/IUCN Reactive Monitoring mission to the property.

In 2016, the Committee reiterated its request to the State Party to invite a joint World Heritage Centre/IUCN Reactive Monitoring mission while expressing its utmost concern over the on-going construction of facilities within the property and the associated increased human presence on Wrangel Island. The Committee considered that these activities pose a potential danger to the property, in accordance with Paragraph 180 of the OGs. It urged the State Party again to halt the construction of facilities and any associated activities until their impacts on the Outstanding Universal Value have been assessed through EIAs. Furthermore, the Committee noted with concern that additional tourism infrastructure was planned within the property and requested the State Party to provide detailed information, including EIAs (see **40 COM 7B.98**).

Shortly before the mission to the property took place in 2017, the Committee essentially reiterated the above-mentioned concerns in its Decision **41 COM 7B.7** and regretted the lack of detailed information on seismic prospecting for hydrocarbons in the East Siberian Sea and the Chukchi Sea requesting the State Party to submit EIAs for these projects, as a matter of priority.

2. NATIONAL POLICY FOR THE PRESERVATION AND MANAGEMENT OF THE WORLD HERITAGE PROPERTY

This section provides an outline of the legal, institutional and structural frame as relevant for “Natural System of Wrangel Island Reserve” (NSWIR). It reviews findings of previous missions to natural World Heritage properties in the Russian Federation as regards the national legal framework for protected areas.

2.1 Legal protection

Protected areas in the Russian Federation are governed by the federal law “*On environmental protection*” dating back to 1991 and updated in 2002, and federal law No.33-FZ “*On specially protected natural areas*”, dated 14 March 1995. The former defines standards for environmental quality, makes provisions for the protection of biota and provides a basis for federal protected areas and activities permitted. The latter regulates the organization, protection and use of protected areas. This legislation differentiates between different types of protected areas such as strict nature reserves, national parks and nature monuments at the federal level as well as nature parks, nature reserves and nature monuments, at the regional level.

World Heritage Centre/IUCN Reactive Monitoring missions¹³ to other properties in Russia have noted with concern that, recently, there have been changes to the Russian legislation: Federal Law No. 365-FZ dated 30 November 2011 and a number of amendments and additions to the Federal Law N° 33-FZ have been made. The changes now allow for capital constructions and related infrastructure in specifically designated plots, so-called “Biosphere Polygons” of Strict State Nature Reserves. A list of these “Biosphere Polygons” was established for each relevant protected area by the Government of the Russian Federation. While reiterating the concerns raised by these previous missions to the Russian Federation on changes in legislation weakening the protection status of Strict State Nature Reserves, the current mission notes that these changes are currently not relevant for the NSWIR as there is no zoning for “Biosphere Polygons” foreseen within the property’s boundaries.

As for the NSWIR, both the terrestrial and marine component of the property are protected through federal law No.33-FZ “*On specially protected natural areas*”, dated 14 March 1995. The property is protected as a Strict State Nature Reserve. In 1975, a decision of the Magadan Oblast Executive Committee (№ 385) set the reserve’s boundaries.¹⁴ Further to this decision, in 1976, the reserve was formally established by decision of the Ministerial council RSFSR (№ 189) and order of Glavohota RSFSR (№ 155). The 12 nautical mile zone around the islands of Wrangel and Herald was added under federal legislation (Decision № 1623-p of the Government of the Russian Federation).

Besides the above-mentioned Law “*On Specially Protected Areas*”, all activities of the reserve, including the protection of lands and waters, are based on the “*Provision on State Nature Reserve “Wrangel Island”*”, approved on June 30, 1997 by the Deputy of the Federal State Inspection for the Environment of the Russian Federation. This accords it the highest level of

¹³ World Heritage Centre/IUCN (2012a); World Heritage Centre/IUCN (2012b)

¹⁴ MNRE (2013)

protection and excludes practically all human activity other than for scientific purposes.¹⁵ Activities aimed at the maintenance of the conservation regime are regulated by the “Provision on Recreational Zone of “Wrangel Island” Reserve” and by “Guidelines for Behaviour on the Territory of State Reserve “Wrangel Island”, developed by the reserve and approved by its Administration. Since 2011, activities of the reserve have been governed by the Charter of State Organization “State Reserve Wrangel Island”, approved by the directive № 460 from 25 May 2011 of the Ministry of Natural Resources and Ecology of the Russian Federation.¹⁶

The “*Provision on Marine Protective Zone of the State Nature Reserve “Wrangel Island” #91*”, approved by the Governor of Chukotka Autonomous Region, dated 25 May 1999 includes strict regulations concerning the marine zone around NSWIR.¹⁷ In 2012, this protective zone was also taken on the federal level through government order N2559-p “*On the formation of a protective zone of State Nature Reserve “Wrangel Island”*” in mutual agreement between the MNRE and the Ministry of Transport. The respective “*Regulation on the Protective Zone of State Nature Reserve “Wrangel Island”*” setting out the provisions and the regime of the protective zone was approved by MNRE through order N 215. On the basis of this regulation, the NSWIR benefits from a 36 nautical mile protected marine zone around both Wrangel and Herald islands connecting the sea territories of both islands. The zone is intended to protect NSWIR “...from adverse anthropogenic influences, to preserve key reproductive and feeding habitats of the Chukchi-Alaska population of polar bears, marine mammals and birds, as well as to protect mammals and birds during migration and reproduction.”

The regulation further states that its boundaries and features are considered in the elaboration of plans and economic and social developments. Supervision, protection, research and use are carried out under the authority of FSBWIR. Forbidden activities include dredging, drilling, exploration and mining works as well as disposal of waste, discharge of oil products and any disturbance of wild animals. Navigation is also restricted. Scientific research (including but not limited to catching or shooting wildlife) and volumes, periods and methods of commercial fishing are subject to permits by FSBWIR.¹⁸

The mission considers that **a sufficient legal protection regime covers fully the World Heritage property**. In the mission’s view, the State Party should be commended for increasing the protective zone around the property at the federal level. The regulation underpinning the protective zone significantly adds to the protection of NSWIR and can prevent deleterious anthropogenic impacts to the property, subject to strict and reasonable implementation by FSBWIR and compliance by marine traffic.

2.2 Institutional framework and management structure

At the federal level, NSWIR is under the responsibility of the Ministry of Natural Resources and Environment of the Russian Federation (MNRE), which is in charge of the reserve’s administration through the Deputy Chief Inspector for Protection, the Deputy Director for Economics and Finance, the Head of Scientific Department and the reserve’s Director. MNRE is responsible for the general management and control of execution.

At the regional level, the management of the property is carried out according to “Regulations of state nature reserve “Wrangel Island””, confirmed by the Vice-Chairman of State Committee

¹⁵ World Heritage Centre (2014)

¹⁶ MNRE (2013)

¹⁷ Directorate of Wrangel Island Reserve (2003)

¹⁸ Art. 1.3 of Annex.Regulation on the Protective Zone of State Nature Reserve “Wrangel Island” of Order N 215 On approval of the Regulations on the Protective Zone of State Natural Reserve “Wrangel Island”, dated 1 July 2013

of the Russian Federation on Environmental protection on 30 June 1997. In accordance with a 1997 agreement between the federal government and the Chukotka regional government, the Chukotka Autonomous Region would be responsible for the day-to-day operations of the nominated site, administration of non-reserve territory, participation in the selection of the Reserve Director, protection of the marine area, and enforcement of the marine regulations.¹⁹ The government of the Chukotka Autonomous Region administers joint activities of the reserve and ecological tourism. It controls the observance of nature protection legislation, coordinates joint activities, and reports on requests and monitors compliance with environmental legislation at the sub-federal level.

At the local level, the town of Pevek, Chukotka, carries out activities on environmental education, exhibitions and other activities. The Federal State Budget Institution “State Nature Reserve “Wrangel Island” (FSBWIR) executes tasks within the assignment by the state in the fields of protection, ecological education, development of ecological tourism, monitoring, scientific research, development and implementation of long-term plans as well as reporting.²⁰

¹⁹ Directorate of Wrangel Island Reserve (2003), see also Periodic Report: WHC (2014)

²⁰ MNRE (2013)

3. IDENTIFICATION AND ASSESSMENT OF ISSUES AND THREATS

Against the background of sections 1 and 2, this section sets out the observations of the mission team based on field visits, meetings with relevant authorities and careful review of relevant documents. In addition to the identification of threats, this section includes recommendations for ensuring protection and management maintain the values for which the property was inscribed. While subsection 3.1 sheds light on issues concerning the management of the property, subsection 3.2 focuses on the threats to the property.

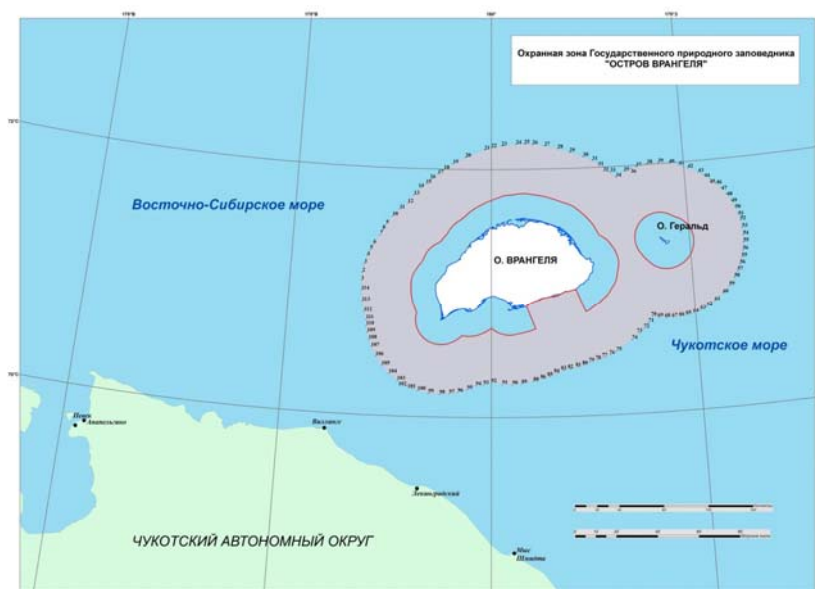
3.1 Management issues

This subsection assesses the effectiveness of the property’s management and identifies management issues.

3.1.1 Boundaries

The boundary for NSWIR was described in the nomination file²¹ as including Wrangel Island, Herald Island and a 12 nautical mile marine area adjacent to and nearly surrounding both islands (see Map 1, below). The distribution of area is as follows:

Component	Area (km ²) ²²
Wrangel Island	7,608.7
Herald Island	11.3
Marine area around Wrangel and Herald Islands	11,543.0
Total	19,163.0



Map 1: The terrestrial and marine components of NSWIR and the 36-mile protective zone (light red). Property boundaries are indicated by the red line (Source: Additional information provided to the mission team after the mission).

²¹ Directorate of Wrangel Island Reserve (2003)

²² Data source: Directorate of Wrangel Island Reserve (2003)

In 1999, a Marine Security 24 nautical mile zone, in addition to the 12 nautical mile marine zone included in the property, was established through the Resolution of the Governor of the Chukotka Autonomous Region.²³ The mission team was informed that also under federal jurisdiction another 24 nautical miles of protective zone have been added (see also chapter 2.1) to the 12 nautical miles marine part of the Strict State Nature Reserve. This protective zone functions as the reserve's buffer zone, but is not officially registered at the World Heritage Centre as a buffer zone to the property.

Since the inscription of the property, the marine zone between Khistchnikov River and Cape Hawaii is excluded from the property and is not subject to the reserve's strict provisions, in order to retain a passage for vessels.²⁴ Apart from the passage for vessels, there are no exclusions noted either in the management plan or in map 1, which was provided to the mission team. It was reported to the mission that an initially planned establishment of a recreational zone near the former settlement Ushakovskoye had been cancelled. Herald Island remains a zone with no direct human activities and there are no exclusions indicated on the map that was referenced.

Whereas the initial nomination file of 2002 suggested a 24 nautical miles buffer zone encircling the 12 nautical miles ocean territory of the property, i.e. 36 nautical miles protected in total, the nomination file of 2004²⁵ did not include any buffer zone for the property. The inscription decision of the World Heritage Committee (Decision **28 COM 14B.14**) encouraged the State Party to add another 12 nautical miles to the property as this would significantly add to the conservation of NSWIR.

Against this background and in view of the already established 36 nautical miles protective zone encircling Wrangel and Herald islands (see also chapter 2.1), **the mission encourages the State Party to consider the extension of the property by another 12 nautical miles as suggested in Decision 28 COM 14B.14 of the World Heritage Committee. It further encourages the establishment of an official buffer zone for the World Heritage property by designating the remaining 12 nautical miles of the total 36 nautical miles protective zone around the property as the World Heritage property's buffer zone**. This would not require an update of the protection regime already in place for this outer part of the protective zone; it would, on the contrary, acknowledge the already existing Regulation on the Protective Zone of NSWIR and establish congruence between this regulation and the World Heritage property.

3.1.2 Management and planning system

The mid-term management plan for the period of 2009–2013 was a substantial management plan but lacked an in-depth tourism plan and clear provisions on climate change impact monitoring.²⁶ Subsequently in 2016, the State Party submitted a new mid-term management plan for the period of 2013-2017, which included some analysis of tourism carrying capacity, a tourism management plan as well as an Action Plan, which aimed to:

- attract additional funds through a modernised research station serving as international research base, including the possibility for photo and video shooting as well as ecotourism;
- make use of cruise and research ships for the delivery of fuel, construction materials, equipment and food; and,

²³ World Heritage Centre (2014)

²⁴ IUCN (2004)

²⁵ Directorate of Wrangel Island Reserve (2003)

²⁶ World Heritage Centre (2009)

- monitor and survey land and water areas through high resolution satellite images to strengthen control over the ocean territory with respect to the opening of the North-eastern shipping route.

In the follow-up to the mission, the mission team received a very brief review from MNRE of the current plan (which expires at the end of 2017) and no update of the plan after 2017. This review of the implementation of the current plan notes the creation of the new information centre at the premises of the reserve's office in Pevek, the modernization of the reserve's infrastructure (guest houses, vehicles, and renewable energies), the establishment of ecological routes with information boards as well as continued clean-up activities. It further notes improved control over navigation through the use of the satellite monitoring system SCANEX and the participation of two employees in training seminars. In the former settlement of Ushakovskoye, not far from the military facilities, the construction of four new houses has started to create a multifunctional base for scientists and eco-tourists, scheduled to be completed by 2017. The mission was informed that the future management plan is currently being drafted and that it will be submitted before the end of 2017. While addressing management of the marine component of NSWIR has been articulated in the existing plan, there is currently neither a marine department at FSBWIR nor any specialists employed by FSBWIR for marine management.

As noted in Section 2.2 above, there exists an agreement between the federal and regional levels of government for the management of the reserve. While this agreement identified that much of the daily management for the administration of protected areas, including the Wrangel Strict State Nature Reserve, would be delegated to the CAA, it is unclear as to the roles of each level of government related to the protection and management of the reserve. In contrast, a close link between the federal level and FSBWIR became evident during the mission. According to the Periodic Report (Second Cycle), the management system is only partially being implemented.²⁷

In considering the property's integration into regional and national planning systems, the practical integration into the planning system had been reported as weak at the time of inscription.²⁸ This is understandable considering that the property is relatively isolated at a distance of approximately 77 nautical miles from the mainland of Russia and accessible only by boat or helicopter and only at limited times of the year. However, the property's integration into regional planning is particularly important to account for ecological aspects, such as migratory species, ice monitoring as well as climate change monitoring, and for economic aspects potentially threatening the property, such as marine transportation, oil and gas exploration and exploitation, as well as tourism.

The mission considers that a description of the roles and responsibilities for the actors involved in governance and management of the reserve should be included in the management plan. This description should include but not be limited to roles and authorities for management including protection, environmental impact assessment, development, operations, outreach, research, monitoring, enforcement, planning and reporting.

3.1.3 Sustainable finance and staffing

The State Party identified challenges related to sustainable finance at the time of nomination. For example, the nomination file includes references to challenges in implementing site

²⁷ WHC (2014)

²⁸ IUCN, 2004

monitoring to the fullest extent due to financial difficulties.²⁹ Funding and staffing for management are also considered inadequate under the current management plan.³⁰

The current management plan for the reserve³¹ identifies various sources of funding for managing the reserve according to annual increments. Sources include federal budget funds, charitable contributions, extra-budgetary funds (grants and sponsors) and income from reserve activities (implementing scientific agreements, service charges for cruise ships, selling souvenir products, and visitation fees). However, for the five-year budget cycle identified in the management plan, the federal budget, which provides for approximately 95 percent of the overall income, was reported to be reduced (approximately halved) from 64.45 M Rb (approx. 1.12 M USD) to 30.34 M Rb (0.527 M USD) between 2013 and 2017.³² This reduction is further exacerbated given that there is no allocation of funding to address the protection and management of the marine component of the property. Income from operations (own activities), only making up approximately five percent of the total budget, would remain essentially at the same level if not decreasing. The management plan further indicates that incomes from operations are considered extra-budgetary resources and are used to fund core activities as well as the purchase of inventory and equipment. Also indicated in the plan are deficiencies in funding for human resources and equipment for effective management of the reserve. The current management plan further notes a lack of interest from regional authorities in providing support to the reserve, which would be related to the constraints posed by federal laws and regulations so that donor organizations may not fund federal institutions.

No up-to-date figures on sustainable finance were made available to the mission. Nonetheless, the mission notes the trend of the decline in operating budget over the past management plan term. It also notes an increase in project funding for tourism and operations and the potential for further revenues from tourism, in particular through cruise ship visitation. In order to maintain the ability to manage and protect the property to the level required and in order to promote and present the Outstanding Universal Value of the NSWIR, a thorough review and renewal of financial resources and appropriate allocations is needed.

According to the current management plan, the structure and staffing of the reserve are determined by the director of the reserve, within the limits of the federal budget appropriations for salaries.³³ While the central office of the reserve is located on the mainland in Pevek, the department of protection is located on Wrangel Island. The current management plan identifies deficiencies in staffing to manage the property. This is explained by a lack of qualified personnel as a result of a low salary level, extremely difficult living conditions, lack of equipment, the isolation and inaccessibility of the property as well as restrictions imposed by labour legislation.³⁴ In terms of training for staff, the mission team noted efforts at operational facilities in the reserve to provide posters for training staff in identification of wildlife and wildlife conditions as well as “rules of behaviour”.

The mission considers that a sufficient budget for the protection, presentation and promotion of the property and financial resources needs to be allocated to address current and past management issues and to achieve on-going operational goals of the property.

²⁹ See section 6, page 19 in the nomination file (Directorate of Wrangel Island Reserve (2003)).

³⁰ MNRE (2013)

³¹ MNRE (2013)

³² MNRE (2013), pp 36

³³ MNRE (2013)

³⁴ MNRE (2013)

3.1.4 Education and interpretation programmes

The current management plan includes a description of activities for the department for environmental education. Three staff members in this department promote cooperation with local and domestic media, organise lectures and publications, and cooperate with museums. Interactions with social and cultural institutions include participation in municipal and district events and joint activities with municipal, regional and federal agencies and organizations, universities, museums, kindergartens and schools.³⁵

The Reactive Monitoring mission team visited the locally managed museums in Pevek and Anadyr as well as the office of FSBWIR in Pevek. The museums in Pevek and Anadyr provide outreach programmes and exhibitions for local residents and visitors, including displays and some interpretation of Wrangel Island Reserve. Both museums have exhibitions and interpretation programmes that promote and present the values of the property in the context of the regional arctic cultural and natural heritage. At the office of FSBWIR, the mission noted recent renovations and upgrading with new interpretation resources that could be used to support staff development and training and as outreach for local people. However, the level of use and activities undertaken by this administrative centre in terms of supporting the protection, promotion and management of the reserve remains unclear. Moreover, the Director spoke of planned renovation and refurbishment of a building in the former settlement of Doubtful to be used as a visitor centre and that reserve staff also participate on cruise ship tours to hold lectures.

The mission noted that the World Heritage emblem is widely used and that the designation as World Heritage property plays an important role in the presentation of the reserve. At the same time, **the mission considers that the Outstanding Universal Value (OUV) for which the property has been inscribed could be better explained and highlighted more clearly in the context of the wider Arctic. This would complement the current presentation of the property, which currently focuses only on the most widely known species.**

3.1.5 Introduced species and environmental monitoring

Past economic activities included traditional reindeer grazing as well as hunting. Attempts for industrialization were characterised by state-owned reindeer farms, fur trapping and the exploration of raw materials. None of those activities have been successful in the long term. Therefore, settlements on Wrangel Island have been abandoned and have left significant amounts of garbage on the island. As of today, none of these economic activities are pursued any further.

The reserve, at the time of inscription, was experiencing considerable increase in the numbers of introduced hooved animals, especially reindeer and musk ox. There were concerns that future increase of their numbers might lead to irreversible changes in vegetation cover of the Island³⁶, as well as to significant harm to bird populations, primarily to nesting goose colonies.³⁷ Measures on regulation of the reindeer population had been taken at the time, and these measures were to be continued and improved further. It was expected that shortly after the time of inscription a similar problem would be relevant to musk ox, whose numbers were growing proportionally to geometric progression. To counter their impact on the vegetation cover and species composition, management strategies still include capture and relocation of young musk ox to other regions of the Russian Arctic. Nowadays, the relocation of young musk ox is mainly used to increase musk ox population in other regions.

³⁵ MNRE (2013)

³⁶ UNEP-WCMC (2011)

³⁷ IUCN (2004)

During the mission, numerous individual animals and herds of musk ox were encountered whilst touring the island. The mission did not observe reindeer however antlers were evident on the landscape. The Reserve Director indicated that ungulates were made available for food for reserve and military personnel. Based on the examination of the southwestern and southern parts of Wrangel Island and no indication otherwise, impacts of introduced ungulates appear to remain limited and a low threat to the biodiversity and ecosystem values of the property, and it would appear that the ecosystems of Wrangel Island remain largely intact .

According to the current management plan, Wrangel Island is the only permanent Russian scientific base in the Arctic engaged in a systematic long-term study of Arctic biota since the 1980s. The plan includes a description of key research and monitoring programmes. The programme includes monitoring 7 components of natural systems with data collection on 51 parameters and 69 by 2017.³⁸ Regular research monitors 15 animal species, particularly polar bear, musk ox, reindeer, snowy owl, snow goose and the predator-prey relations between snowy owl, arctic fox, arctic skua as well as vegetation cover, condition of watercourses and historical objects.³⁹ Additionally, two new research topics were to be implemented by 2015 including a study to describe the “Dynamics of the population of nesting colonies of seabirds in the conditions of global warming” and “The response of vegetation of Wrangel Island to global climate change”. In the last two years, in addition to the annual observations on the island of Wrangel, research on the polar bear has been extended to the entire Russian Arctic. The results of monitoring are formalised in the annual reports “Nature Chronicles”.

However, as already noted in the IUCN evaluation and the current management plan, there is a clear lack of research and knowledge on the marine component of NSWIR.⁴⁰ Furthermore, the importance of Wrangel Island as a key area for monitoring and in-depth studies of the Arctic nature is becoming especially important because in this sector of the Arctic the impact of climate change on biotic and abiotic components is extremely pronounced (see section 3.2.6). However, systematic long-term general and climate change impact monitoring programme are merely planned⁴¹ and do not yet seem to be operative according to the mission’s observations.

The mission recommends the State Party to continue and strengthen monitoring at the property, and in particular,

- a) extend monitoring to the marine component of the property, and**
- b) systematically assess and monitor the impacts of climate change,**

in order to accumulate a strong baseline of data, which will provide reliable and relevant information on the state of conservation and tendencies of species and ecosystems as relevant to the OUV of the property and which may be examined and potentially integrated with monitoring that is being conducted across the Arctic, including in other Arctic protected areas.

Against the background of sections 3.1.1 to 3.1.4, and given that the operational year of 2017 is nearly complete, the mission recommends the State Party to

³⁸ MNRE (2013), pp.30

³⁹ UNEP-WCMC (2011); WHC (2012)

⁴⁰ IUCN (2004); MNRE (2013)

⁴¹ UNEP-WCMC (2011); WHC (2008)

- **immediately review and report on the implementation of the current management plan and the action plan included therein;**
- **complete and submit to the World Heritage Centre for review, a revised management plan, including an updated action plan and a tourism management plan, addressing past and current management issues and providing for adequate financial and human resources to achieve on-going management goals for the entire property (including terrestrial and marine components).**

3.2. Threats to the World Heritage property

Specific threats outlined by the World Heritage Committee,⁴² relate to impacts emerging within the boundaries of NSWIR through garbage remaining from past human use (section 3.2.1), through the construction of military facilities (section 3.2.2) as well as through the development of tourism (section 3.2.3). Possible impacts from outside of NSWIR include impacts from on-going or planned oil exploration and potential exploitation activities (section 3.2.4), from marine traffic (3.2.5) as well as from climate change (section 3.2.6).

3.2.1 Garbage

Former human settlements as well as the industrial and military activities have left significant amounts of debris, especially fuel drums, on the island. The IUCN evaluation of 2004 took note of the policy to remove a drum for each one brought in. At the time of inscription, the World Heritage Committee requested to develop a plan to remove unwanted debris from the former village of Doubtful (**28 COM 14B.14**). The 2013-2017 Management Plan notes contamination and garbage as an on-going problem, with more than 100,000 empty metal drums, more than 25,000 tons of scrap metal as well as more than 250 abandoned, partly ruined buildings and constructions remaining in concentrated areas on Wrangel Island.⁴³ It was reported to the mission that an assessment worth 80 M roubles (1,38 M USD) has been conducted by MNRE for a chemical analysis of garbage.

While the clean-up activities continue, they can only be carried out at a minimum level as the short summer period and the remote location of the island raises costs and limits the access to and the transport from the polluted areas.⁴⁴ According to the 2017 State Party report on the state of conservation of the property, around 1,200 tons of metal garbage were removed from the island in 2016. While noting the amount of waste as a problem, the reserve's management considers that as the man-made waste is localized, it does not threaten the overall integrity of the property nor the elements contributing to its OUV⁴⁵.

The mission was informed that the waste dump near Ushakovskoye, the size and impact of which is unclear – but probably limited reflecting the small and concentrated population at the settlement⁴⁶ – had been cleaned up entirely. The mission did not see any evidence to substantiate this claim because it was not possible to access the areas around the former village of Ushakovskoye. Furthermore, it was reported that the military supports the clean-up activities through the provision of equipment, financial resources and staff. However, the mission regrets that no tangible evidence was provided to substantiate such positive effects of the military on the state of conservation of the property. As of August 2017, the clean-up of the

⁴² see also Terms of Reference for this Reactive Monitoring mission in Annex I

⁴³ MNRE (2013)

⁴⁴ MNRE (2013)

⁴⁵ MNRE (2015)

⁴⁶ UNEP-WCMC (2011)

former settlement of Doubtful was not initiated as was evidenced through direct observation by the mission. The Reserve Director and Federal Ministry representatives indicated that future management activities include a continuation of cleaning man-made waste, which could be completed in approximately five years.

The mission confirms a concentration of garbage in the former settlement of Doubtful and around the facilities of the abandoned airport nearby⁴⁷, and there is also ample evidence of man-made waste in other areas. Significant amounts of oil drums and remains of former human use were noted along Doubtful Spit, which is a key area for walrus rookeries, their prey base, seals, seabirds and polar bears as the mission team could witness first-hand during the site visit. Besides the coastal areas around Doubtful, the mission observed oil drums or smaller pieces of garbage at a lower density in the hinterland. Presumably left by reindeer herders during the time of attempted industrialisation, the mission notes with serious concern that metal drums can occasionally be found within and along almost every riverbed. Noting the potential contamination through the residue of different types of oil, fuel or kerosene and corroding metal presumably impacting downstream areas, **the mission considers it essential to assemble all the scattered drums and metal garbage to central points that are situated at ecologically less sensitive locations before they are taken away from the island as soon as possible.**

While the mission fully understands the difficulties for carrying out these clean-up works in a hardly accessible Arctic environment, the mission notes, with serious concern, the vast amount of waste still remaining on Wrangel Island. The mission appreciates the reported efforts of the reserve's staff, and arguably the military, to conduct the clean-up work. However, the mission regrets that even 13 years after inscription of the property and the above-mentioned Committee Decision **28 COM 14B.14**, the spread of garbage across the whole island as well as the amount of garbage around the former settlements are still at odds with the standards needed for a World Heritage property.

The mission recommends the State Party to complete the removal of garbage and clean-up of associated contaminants within the next five years, and report within the state of conservation reporting cycle process on the planning and implementation for the clean-up of man-made waste, including environmental monitoring data to confirm the remediation of environmental contaminations from the polluted areas.

3.2.2 Military facilities and associated activities

The mission regrets that it was not possible to meet officials from the military installation or to access the areas relevant for assessing the area of the former village of Ushakovskoye where new **military facilities** have been built. In the past, NSWIR has already been subject to military activities. However, all military installations had been abandoned at the time of inscription. The IUCN evaluation of 2004 and the current Management Plan report that this abandoned military installation and the former village of Ushakovskoye represent the greatest concern for NSWIR.⁴⁸

In 2014, third parties raised the issue of new construction works within the boundaries of the World Heritage property.⁴⁹ This included media articles indicating the construction works had already begun. While the news portal, *BarentsObserver*, reported that the impacts of the

⁴⁷ See Annex V

⁴⁸ MNRE (2013); IUCN (2004)

⁴⁹ Bodner (2014)

construction works are said to be checked,⁵⁰ the World Heritage Centre has not received an Environmental Impact Assessment (EIA) of any kind of constructions as requested by the World Heritage Committee in its Decisions **39 COM 7B.25**, **40 COM 7B.98** and **41 COM 7B.7**. As noted in the working documents informing these decisions, the construction of facilities and the associated increase of human presence can have very serious impacts on the fragile ecosystems of NSWIR. Furthermore, there has been a criminal case against a contractor of the Russian defence ministry accused of tormenting a polar bear with an explosive.⁵¹ Considering that NSWIR is protected as a “Strict Nature Reserve”, which does normally not allow for any kind of human interference, it is unclear to the mission on which legal basis these constructions have been approved. It is also unclear what kind and scale of human interference NSWIR is currently facing and if and how negative impacts are being mitigated.

Oral reports by the park’s management to the mission suggested some positive impacts of military presence, since military personnel and equipment would help the reserve’s staff in cleaning up the island from garbage (see section 3.2.1). The mission sees the possibility that a very limited military presence, if all measures are taken to limit and mitigate all negative impacts, could also have positive effects for the conservation of NSWIR. However, the mission has no evidence to plausibly substantiate this claim. To address the lack of information on the impacts of the new military facilities and associated activities, the mission requested additional information, which was submitted shortly after the mission. According to this additional information, negative impacts from the military facilities, which are located in a formerly used area, would remain limited. However, detailed information on the impacts of the facilities is still lacking. Thus, the mission was unable to get a clear view on the current status of military installations, associated activities and related impacts. It is not possible to assess the impacts of military facilities and activities on the OUV of NSWIR without clearer information regarding the size, distribution, nature and impacts of military activities. Therefore, the mission cannot affirm that the military presence does not represent an ascertained danger to the OUV. Given the fragility of the Arctic ecosystem of NSWIR and its status as Strict Nature Reserve, the mission considers that, in principle, military activities should not be conducted within the boundaries of the property.

Therefore, the mission recommends that the State Party provides more detailed information on current and potential impacts of **military facilities and activities** on the property’s OUV in the next report to the World Heritage Committee, immediately halt any activities that may negatively affect the OUV and employ mitigation measures to prevent or at least minimise the impacts of military facilities and activities. .

3.2.3 Tourism

The World Heritage Committee noted plans to develop further tourism infrastructure and increase visitation to the island at this 36th session (Saint Petersburg, 2012) and urged the State Party to develop and implement an effective plan for tourism use within the property and to conduct an EIA (see Decision **36 COM 7B.20**).

Tourists typically reach Wrangel Island by cruise ship, subject to permits as well as strict regulations and access criteria. Tourists do not visit Herald Island as it is hardly accessible and constrained by even harsher climatic conditions that render visitation unviable. The mission noted that there are currently two types of tourism on Wrangel Island: (1) cruise ships sailing

⁵⁰ Nielsen (2014)

⁵¹ Luhn (2016)

around the island and disembarking medium-sized groups of tourists staying for a few hours, and (2) small group excursions across the island staying for a few days.

Type (1) was witnessed by the mission first-hand during its field visit when a medium-sized vessel anchored at the 180 degree meridian off the southern coast. A group of approximately 40-50 people reached the shore on dinghies to stay on the island for a couple of hours and to roam along the shores and up the slopes in smaller groups. Up to 5 cruise ships arrive mainly in August carrying a maximum of 150 tourists. Cruise ship landings are subject to permits granted by FSBWIR, which include fees that fully benefit FSBWIR. Cruise ship tourists are in fact a source of revenue for the reserve and a means of promoting the reserve's values. The current management plan reports that up to 90% of the customers for cruise ship tourism in the Russian Arctic buy their tickets to visit Wrangel Island. This would also be a consequence of its status as World Heritage property. Consequently, Wrangel Island is seen as one of the key factors for the development of tourism in Chukotka. The management plan also notes the possibility to make use of cruise ships for the delivery of fuel, construction materials, equipment and food.⁵² The mission considers that, in principle, this type of tourism only implies marginal impacts as long as it is carefully managed and as long as it remains limited and tourists adhere to a strict policy of not leaving any garbage behind.

Type (2) was experienced by the mission, as the mission followed typical routes of on-land excursions and stayed at the respective guesthouses. The new guesthouses consist of five modern modular guesthouses accommodating small groups of staff, tourists and occasionally researchers and were mainly constructed along the existing network of field stations and ranger posts distributed across Wrangel Island. Four additional facilities are reportedly being built in the former village of Ushakovskoye. The development of tourism infrastructure and increase in visitation on the island went hand in hand with the needed modernisation of the reserve's infrastructure.⁵³ It was reported to the mission that the excursions consist of approximately five visitors accompanied by reserve staff. In most cases, these groups disembark from cruise ships at the first landing point on the island and are picked up again at the second landing point. Additionally, up to 6 small groups per year of up to 10 people conduct special ecotourism expeditions to study the natural reserve, to observe and to photograph animals for periods of 7-14 days.

Reserve management strives to operate and maintain these stations in an environment-friendly manner. According to the management plan, all remnants that cannot be burned on-site in special furnaces are transported to storage bases in the former settlement of Doubtful and Ushakovskoye.⁵⁴ Rational use of fuel and firewood (driftwood in stations at the shores) for heating would save money and minimize transport over the island. Solar panels and wind turbines (the latter only if they are not endangering birds) are becoming more important. The mission acknowledges these achievements of the reserve's management. Nevertheless, the mission noted that the footprint of the field stations could be significantly reduced if grey water and human waste would not be disposed into the environment. In terms of transport between the field stations, the current policy is to preferably use existing tracks and overland traffic, for tourism and operations, through riparian areas, which may have localised impacts on habitat for riparian species including avifauna.⁵⁵ Numerous tracks from before the designation of the reserve are still visible (see Annex V); however, the mission was informed that there is an expected increase in number of tracks with potential further development of tourism.

⁵² MNRE (2013)

⁵³ MNRE (2011), see also WHC (2012)

⁵⁴ MNRE (2013)

⁵⁵ IUCN (2004)

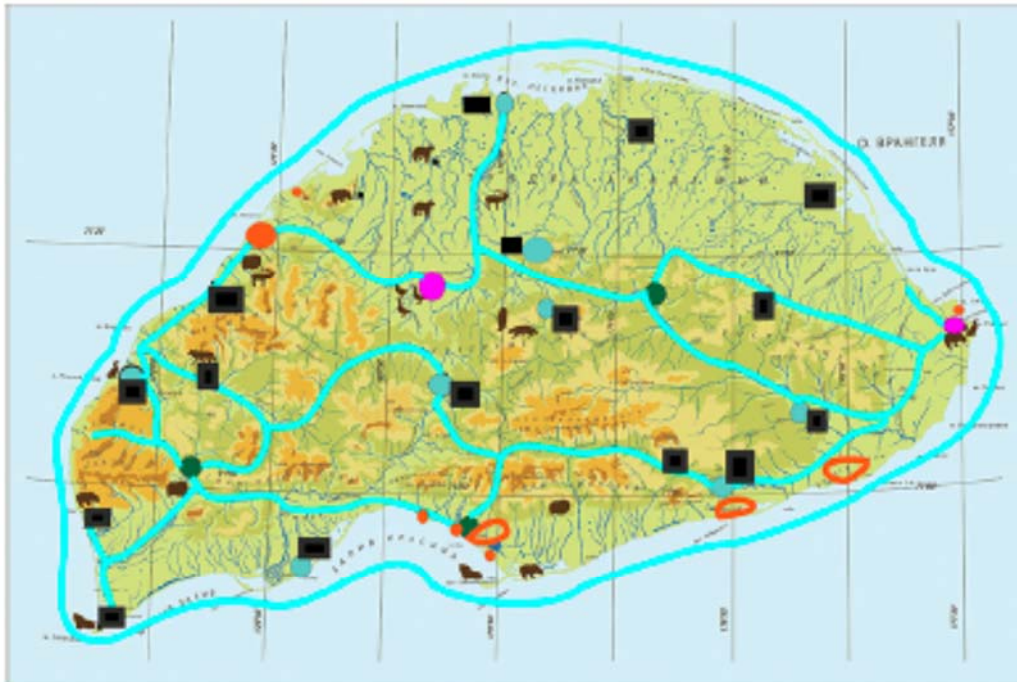
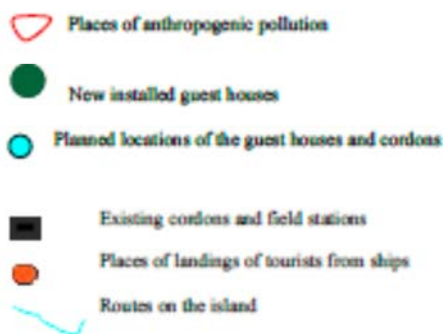


Fig. 3. Location of the field stations of the reserve, ecotouristic routes and bases on the island. The main places of anthropogenic pollution.



Map 2: Tourism and field infrastructure on Wrangel Island⁵⁶

While it was reported to the mission that only two percent of the reserve’s territory is used for tourism, the mission notes that the distribution of routes, guest houses and cruise ship landing spots are quite equally distributed over the territory without any recognisable zoning and clearly indicated restricted areas that can be identified as such by visitors (see also map 2). It does not appear to account for the distribution of biodiversity hotspots identified in the nomination file.⁵⁷ Only Herald Island remains an almost completely undisturbed zone of the property. In the view of the mission, the State Party should consider introducing a zoning with clear provisions on the allowed types of human activity in order to strengthen the protection regime of the reserve. Increased tourism infrastructure can have very serious impacts on the fragile environment of the island not only during the construction phase, but also due to continuous human presence during its future operation.

⁵⁶ Source: MNRE (2013)

⁵⁷ See maps in Annex A, pp23, in nomination file (Directorate of Wrangel Island Reserve (2003))

According to the current management plan and explanations to the mission, access to the reserve is tightly controlled and includes scientific expeditions led by reserve staff. Visitors within the reserve must always be accompanied by the inspectors of the protection department or of the research department. The reserve reportedly has the capacity and experience to organise such visits in an environmentally friendly way thanks to the continuous and in-depth studies of the island's flora and fauna.⁵⁸ All visitors must be familiar with the "rules of behaviour" in the reserve and safety regulations, and complete the training on reserve status and safety on-site before their arrival to the reserve. While the "rules of behaviour" stipulate a very cautious conduct limiting disturbance of fauna and flora to a minimum, the mission regularly noted non-compliance to these rules by reserve staff and only limited enforcement. The organisation of the visits requires a significant deployment of staff. The mission was informed that each group of visitors requires dedicated staff for preparing the guesthouses, conducting the tours around the island as well as for joining the cruises to hold lectures and to give instructions. While these educational activities create necessary additional revenues for the reserve, it further accentuates the lack of staff (see section 3.1.3) for important conservation activities (such as clean-up, monitoring etc.) during the very short summer season.

All in all, the mission raises three concerns related to the current level of tourism: Firstly, diversion of staff deployment; secondly, poor implementation of the "rules of behaviour", resulting in, thirdly, inappropriate disposal of human waste, among others. Growing visitor numbers, reported in the current management plan, exacerbate these concerns. Visitor numbers on Wrangel Island have more than doubled between 2010 (129 visitors) and 2013 (304 visitors). The 2017 state of conservation report already indicated that 500 tourists per year are brought to the island.⁵⁹ These numbers were confirmed to the mission and can be expected to further rise in the next year. While developing scientific and educational tourism at the property offers considerable potential benefits, the particular sensitivity of the tundra ecosystem and the location of the property near the margin of the distribution range of many of its biota require a cautious approach to tourism development.⁶⁰ If developed in a responsible way, the site may offer a unique opportunity to experience the Arctic, but only for a limited number of people. Additional people on the reserve necessitate strategies for management of human waste and associated materials and fuel transported from off island sources. Waste water, human waste and garbage will have to be managed in a responsible manner; "rules of behaviour" need to be strictly applied and adhered to, including by reserve staff, and staffing needs to be sufficient to supervise visitors whilst fully ensuring regular conservation activities.

The mission considers it important that the State Party addresses these issues to ensure that operations do not negatively affect the OUV of the property. Any proposals for further construction of tourism facilities and increased visitation by cruise ship travellers and their activities at NSWIR should be preceded by the completion and approval of a comprehensive environmental impact assessment (EIA), which pays particular attention to the potential impact of tourism on the property's OUV, in accordance with IUCN's World Heritage Advice Note on Environmental Assessment. The mission recalls the request of the World Heritage Committee that the State Party submits a tourism management plan and recommends that it is included in the next management plan (see recommendations at the end of section 3.1). In addition, the mission recommends that the State Party develop an overall tourism strategy for the property, which could be the basis for a reflection on an overall policy of tourism development for the

⁵⁸ MNRE (2013)

⁵⁹ MNRE (2016), see also MNRE (2013)

⁶⁰ World Heritage Centre (2017)

Chukotka Region, promoting its rich natural and cultural heritage (see recommendation at the end of section 4).

In order to limit the impacts of tourism, including the impacts of human waste disposal, to a minimum, **it is recommended that the State Party ensures full compliance with the Federal State Budget Institution “State Nature Reserve “Wrangel Island” (FSBWIR) “rules of behaviour” of all persons at the property, including management and staff, researchers, military personnel and all visitors. As the recommendations on the tourism management plan and the tourism strategy are linked to other subjects, they can be found in sections 3.1 and 4 respectively.**

3.2.4 Hydrocarbon exploration and potential exploitation

In its Decision **39 COM 7B.25**, the World Heritage Committee noted in 2015 with serious concern reported oil exploration activities undertaken by Rosneft in proximity to the property. The Committee reiterated its position that oil exploration or exploitation is incompatible with World Heritage status. To assess the impacts of these activities as well as other planned activities, the Committee requested the State Party to undertake Environmental Impact Assessments (EIAs), in line with IUCN’s World Heritage Advice Note on Environmental Assessment,⁶¹ which was reiterated in Decisions **40 COM 7B.98** and **41 COM 7B.7**.

In its 2017 report on the state of conservation of the property, the State Party reaffirmed that oil exploration and production are prohibited within the boundaries of the property.⁶² On the basis of the information made available, the mission confirms that there are currently neither exploration nor exploitation activities foreseen within the boundaries of the World Heritage property. The licenses for the subsoil plots of Yuzhno-Chukotski, Severo-Vrangelski-1 and -2 do not intersect with the property’s boundaries, which is welcomed by the mission. However, the mission raises four concerns regarding these licenses:

The first concern relates to the location of the licenses, which are partly overlapping with the 36 nautical miles protective zone. During the mission, it was confirmed verbally by MNRE that there was a mapping error related to the location of the licenses, which has been corrected in the meantime. Nevertheless, according to the spatial data provided to the mission team after the mission, the changed license plots appear to still intersect with the federal 36 nautical miles protective zone of the property. In the view of the mission, this would conflict with article 2.1. of the *“Regulation on the Protective Zone of the State Nature Reserve “Wrangel Island”*”, which prohibits exploration works as well as drilling operations. The mission considers that the provisions of the regulation on the protective zone should be fully implemented ensuring that the current licenses are excluded from the 36 nautical miles protective zone.

This is particularly important to effectively protect NSWIR from negative impacts caused by seismic exploration, which is the mission’s second concern. Impacts of seismic prospecting in the East Siberian Sea and the Chukchi Sea on species that are critical for the OUV of the property were reported by the State Party in its latest 2017 report on the state of conservation of the property not to be a concern. However, IUCN noted that geophysical prospecting in the vicinity of the property might have serious negative impacts, particularly on some marine mammals and bird species.⁶³ Additional information provided to the mission team after the end of the mission reported that an assessment of the condition of feeding grounds is missing and

⁶¹ IUCN (2013)

⁶² MNRE (2016)

⁶³ World Heritage Centre (2016b)

that seismic prospecting has a negative impact on marine fauna. It is increasingly recognised that marine noise, including seismic exploration, negatively impacts marine fauna. Species experiencing impacts from seismic prospecting include pinnipeds, cetaceans and polar bear – all of them important elements of the property’s OUV.⁶⁴ As FSBWIR has not yet established capacity to monitor the marine part of NSWIR (see chapter 3.1.5), there is hardly any knowledge on the current condition of its marine fauna. Together with the uncertainty concerning impacts from seismic exploration in proximity of NSWIR, the mission raises serious concerns about potential negative impacts on the OUV of NSWIR, especially as seismic exploration has already begun according to oral reports to the mission. To the mission, it is currently not clear at what intensity and frequency these activities already take place and if they are located in the vicinity of the property. Therefore, the mission considers that more detailed information is needed on current and planned exploration activities. Furthermore, the mission notes that it is vital to include a rigorous assessment on the impacts from seismic exploration on the property’s OUV in an Environmental Impact Assessment (EIA) of the licenses of Yuzhno-Chukotski, Severo-Vrangelski-1 and -2 before any seismic exploration works are undertaken in the vicinity of the property, in accordance with IUCN’s World Heritage Advice Note on Environmental Assessment.

The third concern relates to the legal provisions of the licenses and risks connected to potential drilling for hydrocarbon. The mission notes with utmost concern that the three licenses already include the possibility of hydrocarbon exploitation. Article 2 of Order No. 103-p of the Government of the Russian Federation, dated 31 January 2013, grants Rosneft the right to use the licensed subsoil plots not only for “geological study of subsoil, exploration”, but also for “production of hydrocarbon raw materials”. Without doubt, any activities that include drilling, be it exploratory or be it for hydrocarbon exploitation, represent a high risk not only for the property but also for the wider arctic region. The location in the Arctic exacerbates the general environmental risks of offshore drilling as exploitation technology adapted to arctic conditions is still in its infancy. Drilling under the present meteorological conditions would be connected to a wide range of risks with complicating factors such as ice drift, sea depth volatility, particularly strong winds and storms etc. (see also section 3.2.5). Considering the circular ocean currents around Wrangel Island⁶⁵ and the frequency of strong winds⁶⁶, NSWIR appears to be particularly vulnerable in case of an accidental oil spill in the license areas, which are located to the south-east, north-east and north of NSWIR.

Against this background, the fourth concern of the mission pertains to risks in case of emergencies and emergency response capacity. It is of serious concern that, according to the additional information provided to the mission, there is currently no emergency response scheme in place for accidental oil spills under conditions of ice. Ice and weather conditions as well as simply the distance to larger ports limit the possibility for quick and efficient intervention in case of accidents on drilling rigs, drilling rods and tankers. It is still unclear nowadays what implications leakages under the ice-shield would have and how they would need to be addressed. Therefore, the mission considers that prior to any exploratory and permanent oil drilling activities and marine transport of hydrocarbons, a profound oil spill emergency response scheme must be established. As appropriate emergency responses and the consequences of spills are relevant for the whole Arctic, it is the mission’s view that this should be done in collaboration with regional, national and global actors and governments.

⁶⁴ Prideaux (2016)

⁶⁵ Marchenko (2012), pp.160; 214

⁶⁶ IUCN (2004)

Taken together, the mission regards any hydrocarbon exploitation in the vicinity of the property as a serious risk to the integrity of NSWIR, as any oil slick and other pollution could be transported quickly to the property through ocean currents and winds. In the view of the mission, any exploration and exploitation of hydrocarbons as well as all related risks need to be carefully evaluated and quantified through an EIA, which fully accounts for the particularities of the Arctic and which is conducted according to highest international standards. The mission regards it as crucial that this EIA carefully assesses potential and actual impacts on the OUV of NSWIR, in line with the IUCN Advice Note on Environmental Assessment, before taking a decision. Furthermore, given the scope of potential impacts, the mission notes the International Finance Corporation (IFC, World Bank Group) Performance Standards on Environmental and Social Sustainability of 2012⁶⁷ should be strictly applied. In view of the particularly high risks related to drilling activities in the vicinity of NSWIR, the mission considers that a decision to go forward with hydrocarbon exploitation without prior EIA would represent a potential danger to the property, in accordance with paragraph 180 of the OG, which would constitute a case for inscription on the List of World Heritage in Danger.

In conclusion, the mission recommends that the State Party should carefully assess and address the risks of all hydrocarbon exploration activities and potential hydrocarbon exploitation in proximity to the property and specifically

- a) provide more detailed information on the current, planned and already undertaken hydrocarbon exploration and/or exploitation activities within the licenses of "Severo-Vrangelski -1", "Severo-Vrangelski -2" and "Yuzhno-Chukotski" " in the next report to be examined by the World Heritage Committee in 2018,
- b) ensure that the 36 nautical miles protective zone around the property is excluded from the current licenses,
- c) complete an EIA on hydrocarbon exploration and exploitation respecting IFC 2012 performance standards⁶⁸ and the IUCN Advice Note on Environmental Assessment prior to any exploratory and permanent drilling activities, with a view to withdrawing from those license areas and/or activities that are proven to represent a potential danger to the OUV of the property, and
- d) develop and implement a strong oil spill emergency response scheme, in collaboration with regional, national and global actors and governments prior to any exploratory and permanent oil drilling activities and marine transport of hydrocarbons.

3.2.5 Marine traffic

As the polar ice sheet retreats, the North-eastern passage becomes a more and more attractive route, which passes by off the southern coast of Wrangel Island. The route reduces transport time by 45 % compared to the conventional route through the Suez Canal. The transport strategy of the Russian Federation for 2030 envisages the development of the Northern Sea Route also in relation to hydrocarbon exploitation on Arctic sea shelves. Already in 2010, the first large-capacity tanker sailed along the Northern Sea Route to China, supported by nuclear icebreakers.⁶⁹

⁶⁷ IFC, 2012

⁶⁸ IFC (2012)

⁶⁹ Marchenko, 2012

However, navigation in the East Siberian and Chuckchi Sea is connected to significant hazards. These hazards include sharp changes in depth, dynamically varying depths due to wind surge as well as compressed ice in the East Siberian Sea and ice floes in the Chukchi Sea, with submerged parts much wider than parts above the surface. Therefore, navigation in East Siberian and Chukchi seas is considered complicated.⁷⁰

In view of these hazardous conditions, the mission considers that shipping in proximity to NSWIR could become a serious threat to the property, if marine traffic intensifies in the future. The current management plan for the property already noted the increase in commercial shipping along the North-eastern passage as a potential external threat to the natural complex of Wrangel.⁷¹ The Action Plan annexed to the Management Plan envisages a strengthened surveillance of navigation. Control over navigation has already been improved through the use of the satellite monitoring system SCANEX (see section 3.1.2). The mission regards it crucial that the efforts in monitoring and regulation of navigation by FSBWIR will be continued and strengthened.

At the regional level, the sea operations in the East Siberian and Chuckchi seas are managed by the East Marine Operations Headquarters (EMOH), located in the port of Pevek. The security of navigation is ensured by the Northern Sea Route Administration (NSRA), which coordinates shipping in the Russian Arctic and which collaborates with relevant services on the prevention and mitigation of emergencies. Depending on seasonal ice conditions, the recommended route is set closer to the southern coast of Wrangel Island, even though several shallow areas surround the island.⁷²

While it is understood that marine traffic relevant for NSWIR is governed by three institutions – FSBWIR, EMOH and NSRA – and that NSRA provides for emergency prevention and mitigation, the mission doubts that rapid intervention capacity in case of accidents of vessels and other emergencies is sufficient to prevent any negative impacts for NSWIR. Considering generally hazardous conditions for shipping and the prospect of shipping of hazardous goods (hydrocarbons), the mission raises concern about the outlook of increased marine traffic in proximity to NSWIR.

Therefore, the mission considers that a robust environmental governance and careful planning at regional level are crucial to ensure that negative impacts on NSWIR from future increases in marine traffic will be avoided. Sufficient intervention capacity should be developed through establishing an emergency response scheme in collaboration with regional, national and international levels before any threat becomes pertinent. On the international level, further protective designations such as IMO Particularly Sensitive Sea Areas should be taken into consideration to strengthen the environmental governance of marine traffic in proximity to NSWIR.

The mission recommends that the State Party develops a strong environmental governance of any future increase of marine traffic in proximity to the property, including an emergency response scheme specifically for the property.

3.2.6 Climate change

The sequence of extreme September sea ice extent minima observed in the whole Arctic since 2002 points to an acceleration in the response of the Arctic sea ice cover to anthropogenic

⁷⁰ Marchenko, 2012

⁷¹ MNRE (2016)

⁷² Marchenko (2012) p.23

warming, hastening the transition towards a seasonally open Arctic Ocean. This acceleration results from several mutually supporting processes:

1. As there is more open water in any given September than there used to be, more solar radiation is absorbed by the exposed open water areas during summer, leading to a thinner ice cover the following spring that is vulnerable to melting out during the next summer.
2. Thinner ice in spring in turn fosters a stronger summer ice-albedo feedback, through earlier formation of open water areas in summer that further accentuate summer ice loss.
3. Finally, warming of the Arctic has reduced the likelihood of cold years that could bring about temporary recovery of the ice cover. Continued decline of Arctic sea ice will have widespread socio-economic, ecological and climatic impacts.⁷³

On Wrangel Island and elsewhere, the retreat of ice cover puts at risk, for instance, the polar bear population as the bears rely on the ice cover to prey on seals etc. Continued and accelerated climate change is potentially a serious threat to the Outstanding Universal Value of the property.

Although a marked reduction of sea ice cover in the Arctic Ocean (Stroeve *et al.*, 2012) and climate change induced shifts in the terrestrial environment of the high Arctic (Prowse *et al.*, 2009) have been documented, and although secondary effects of these phenomena on terrestrial ecosystems (Jia *et al.*, 2009) and Arctic marine mammals (Gleason & Rode, 2009; Schliebe *et al.*, 2008) have been found in other locations of the high Arctic, only very limited data linking the status of natural values to climate change are available from the property. The only exception is anecdotal evidence of increased walrus mortality during a year of marked pack-ice retreat (Ovsyanikov *et al.*, 2007). Other species, such as snow geese have recovered over recent decades as a consequence of global warming and changing environmental conditions. Further increase in the snow goose population is anticipated.⁷⁴

It was reported to the mission that the reserve's staff is increasingly observing polar bears changing their prey to terrestrial mammals and riverine fish. According to the current management plan, impacts of climate change become also apparent through accelerated and new erosion processes, such as intensified coastal erosion as a consequence of the retreating ice shield. Furthermore, melting permafrost soils activate karst processes. Intensified storms result in new local and single-point pollution from the sea.⁷⁵ The Management Plan of the property sets the goal to integrate the reserve into the circumpolar network of key areas for studying the reaction of biota to global climate change, which is in line with the IUCN evaluation that sees the reserve as a potentially important "weather vane" for climate change detecting environmental changes and adaptations.⁷⁶

The mission has concern that climate stressors at the observed pace and magnitude add to increasing direct human-induced stressors, which are discussed in the previous chapters, putting the property's flora and fauna under significant pressure. It will be important to reduce human-induced stressors to increase chances that flora and fauna of NSWIR can withstand and adapt to the impacts of climate change. Furthermore, it will be important to strengthen the monitoring of the changes and to carefully assess the ecosystem's coping capacity in order to enable informed decision-making on current and envisaged human activities on the property.

⁷³ UNESCO (2009)

⁷⁴ Baranyuk (2007)

⁷⁵ MNRE (2013)

⁷⁶ IUCN (2004); UNEP-WCMC (2011)

4. ASSESSMENT OF THE STATE OF CONSERVATION OF THE PROPERTY

The property was inscribed on the World Heritage List under natural criteria (ix) and (x). So far, there is no Statement of OUV for NSWIR adopted by the World Heritage Committee. Nevertheless, the IUCN evaluation of the nomination explains and justifies the values for which the property has been inscribed, including its integrity as well as protection and management (see also section 1.1).

Based on accessible information, conversations with the responsible authorities, personal impressions from flying over a part of the property and from the extensive field trips in the surroundings of the field stations Unexpected and Doubtful during the mission, **the mission has noticed no major changes to the state of conservation and integrity since inscription, but only for those parts of the property that could directly be visited. While improvements in NSWIR's protection and management since inscription can be acknowledged, the overall effectiveness of NSWIR's management remains insufficient. The mission also notes an insufficient level of information on important features of the OUV, especially the marine component of the property, and the impacts from military facilities and activities, tourism development as well as on resource exploration and potential exploitation activities.**

Considering the trends towards growing human presence, including tourism and military activity on the property, as well as hydrocarbon exploration and potential exploitation and increased marine traffic in vicinity of the property in times of aggravating climate change, the mission considers the property's state of conservation might be at serious risk in the future, unless effective actions are taken to address these factors. These factors might soon compromise Outstanding Universal Value (OUV) of the property, including the conditions of integrity, and require close surveillance and a targeted management response. In short:

- Tourism development could become a threat unless it is planned carefully and based on a rigorous EIA.
- Construction and operation of military facilities on the island, while extent and activities are unclear, may represent a very serious threat to the property's values and integrity.
- Hydrocarbon prospecting that has recently begun and potential exploitation in the vicinity of the reserve represent very serious threats to the property's values and integrity.
- Marine development, commercial navigation and ice breaking, in the vicinity of the property might increasingly compromise and represent very serious threats to the property's values and integrity, unless appropriate measures to assess, control, manage and mitigate them are taken.
- Climate change is already impacting the property; the extent to which it affects the values of the property needs to be measured more systematically.

Regarding the provisions of the OG on the inclusion of World Heritage properties on the List of World Heritage in Danger, the mission considers the factors of military facilities and hydrocarbon exploration and potential exploitation as the most pressing issues:

If a decision is taken to go forward with hydrocarbon exploitation without a prior EIA in line with IFC 2012⁷⁷ performance standards and a rigorous assessment of the impacts on the OUV of the property, in line with the IUCN Advice Note on Environmental Assessment, the mission considers that this would represent a potential danger to the property and a case for inscription of NSWIR on the List of World Heritage in Danger.

If it is confirmed that impacts of military facilities and activities have negative impacts on the fragile Arctic ecosystem of NSWIR, the mission considers that this would constitute and ascertained danger to the OUV necessitating an inscription of NSWIR on the List of World Heritage in Danger.

Regarding the level of information on these and other factors, the mission notes that, as far as the mission could verify, an EIA on the development of tourism infrastructure is still lacking but also military constructions and resource exploration lack prior EIAs taking into account the property's OUV. In its Decision **39 COM 7B.25**, the Committee requested to undertake Environmental Impact Assessments (EIAs), in line with IUCN's World Heritage Advice Note on Environmental Assessment, in order to assess the impacts of resource exploration activities as well as other planned activities. Decision **40 COM 7B.98** reiterated this request and also requested EIAs on the construction of facilities, i.e. including military installations, as well as on tourism infrastructure. Incomplete information regarding management of the NSWIR and the conditions of integrity of the values for which the property was inscribed on the World Heritage List limit the assessment of the property's state of conservation and of threats affecting it. A persistent lack of information while the abovementioned developments continue may in the near future lead to the property being considered as being faced with potential danger, in accordance with paragraph 180 of the Operational Guidelines.

Therefore, this lack of knowledge on the impacts of all recent developments within and in proximity to the property and shortcomings in the management in combination with the variety of threats identified (see section 3) are reasons for concern. The lack of knowledge on the impacts of all recent developments needs to be urgently addressed to provide information on the impacts of the threats (section 3.2) and to inform management decisions (section 3.1). It is important to understand the cumulative effect of these impacts in terms of their temporality, spatiality and magnitude.

The temporal development of impacts clearly trend towards increased human presence and a wider range of activities in recent years. Spatially, this trend precipitates in both the terrestrial and marine components as well as from outside of the property on a regional level. While the magnitude of some specific impact at a certain place and point in time may appear to be limited, it can be harmful in conjunction with impacts from other activities. As impacts are not assessed, it remains unclear with what magnitude, temporal development and spatial extent the values of NSWIR are affected. This is further exacerbated for the fragile Arctic ecosystem of NSWIR in light of the impacts of climate change, which are proven to be more significant in the Arctic than in other regions.

Therefore, the mission considers that the actual carrying capacity of NSWIR needs to be ascertained to enable informed decision-making on current and envisaged human activities at the property. Clarity about NSWIR's carrying capacity could also inform spatial zoning and season-sensitive regulation of overall human presence (including reserve staff, researchers, visitors, military personnel and associated staff, weather station staff, researchers etc.). Until then, the mission recommends that FSBWIR should stop the rising trend in visitation and

⁷⁷ IFC (2012)

freeze current visitor numbers as long as cumulative impacts and NSWIR's carrying capacity remain unclear.

Furthermore, the mission considers, in view of threats not only from inside but also from outside the property (sections 3.2.2 and 3.2.3), which are relevant for the wider region, regional planning should strategically prepare for managing growing threats in the future and weigh viable alternatives, such as for shipping routes, in order to avoid negative impacts on the property. In the wake of growing economic interests in the Arctic, the mission considers it important to ensure that future planning and developments in the wider region will carefully consider the protection of NSWIR.

It is recommended that the State Party identifies the ecological carrying capacity of the World Heritage property with respect to human impacts and taking into account the impacts of climate change, through a study on the terrestrial and marine components of the property to establish a critical upper ceiling for human impacts and a pivotal point for decision-making, which should determine

- e) the regulation of overall human presence (including military personnel and associated staff, reserve staff, researchers, tourists, weather station staff, etc.),**
- f) spatial zoning and season-sensitive regulation of human activities, and**
- g) an overall tourism strategy for the property, which could be the basis for a reflection on an overall policy of tourism development for the Chukotka Region, promoting its rich natural and cultural heritage.**

5. CONCLUSIONS AND RECOMMENDATIONS

The mission based its findings on the review of documents, meetings with relevant authorities and field visits.

The mission regrets that it was not possible to access all areas relevant for the assessments required by the World Heritage Committee, in particular the area of the former village of Ushakovskoye where the new **military facilities** have been built. While some oral reports by the site manager suggest potential positive effects for conserving NSWIR and that negative impacts would remain limited, the mission has no basis upon which it could assess the impacts of these military facilities and associated activities on the OUV of the property. Therefore, it is not possible to confirm that the military presence does not represent an ascertained danger to the OUV. Given the fragility of the Arctic ecosystem of NSWIR and its status as Strict Nature Reserve, the mission considers that, in principle, military activities should not be conducted within the boundaries of the property.

As for **oil exploration** activities, the mission welcomes that the licenses for the subsoil plots of Yuzhno-Chukotski, Severo-Vrangelski-1 and -2 do not intersect with the property's boundaries. However, the mission notes with utmost concern their location and extent, partly overlapping with the 36 nautical mile protective zone around the property, the reported negative impacts from seismic prospecting and that the licenses include the right to produce hydrocarbon raw materials. The mission notes that any hydrocarbon exploitation in the vicinity of the property would present serious risks to its integrity, as any pollution could be transported quickly to the site through the ocean currents and winds. These risks are further exacerbated by the fact that hydrocarbon exploitation in the arctic presents specific ecological challenges and limits the possibility for quick and efficient intervention in case of an accident due to the prevailing environmental and meteorological conditions. These risks will need to be evaluated and quantified carefully through an EIA, conducted to the highest international standards and taking into account the 2012 IFC Performance Standards on Environmental and Social Sustainability⁷⁸ as well as the IUCN Advice Note on Environmental Assessment⁷⁹ and submitted to World Heritage Centre for review by IUCN before taking a decision. The mission considers that a decision to go forward with the envisaged exploitation without prior EIA would represent a potential danger to the property, in accordance with paragraph 180 of the OG, i.e. a case for inscription on the List of World Heritage in Danger.

As for **tourism**, the mission considers that FSBWIR should not go beyond current visitor numbers as long as the cumulative impacts of the other mentioned factors remain unclear and as long as staffing for the conservation work remains insufficient.

Concerning issues raised already at the time of inscription, the mission welcomes straightforward and clear-cut boundary delineation of the property, underpinned by respective regulations. The mission particularly commends the establishment of a 36 nautical mile **protective zone** encircling Wrangel and Herald islands. It acknowledges achievements in the **management** of NSWIR since its inscription, but considers that significant improvements are still required.

As for metal **garbage** however, the mission notes, with serious concern, the vast amount still remaining on Wrangel Island. While the mission appreciates the reported efforts of the reserve's staff, and arguably the military, in cleaning up the island, it regrets that 13 years after

⁷⁸ IFC (2012)

⁷⁹ IUCN (2013)

inscription, sufficient improvements of the situation cannot yet be recognised in the areas visited.

Furthermore, the mission identifies the likely increase in **marine traffic** along the North-eastern passage as a potential threat in the future for which robust environmental governance and intervention capacity should be developed collaboratively at regional, national and international levels before any threat becomes pertinent.

Taken together, the mission raises serious concerns about the **cumulative impacts** of all these factors, which are trending to intensify in the future. Impacts of **climate change** further exacerbate the pressure on the ecosystem. Therefore, the mission stresses the importance of systematic monitoring of climate change in conjunction with a mitigation of the cumulative impacts.

On a general note, the mission regrets the limited provision of information over the past years in response to the requests of the World Heritage Committee and as required by paragraph 172 of the *Operational Guidelines*. Therefore, the mission encourages the State Party to strengthen its reporting within the Reactive Monitoring process and recommends the World Heritage Committee to urgently request action from the State Party to address the insufficient level of **information within the past two years' period**, in particular providing information on the impacts of the military facilities and activities, any further constructions and tourism developments as well as on resource exploration and potential exploitation activities.

Currently, it is recommended that the property is not placed on the List of World Heritage in Danger, on the conditions that:

- **the military presence within the boundaries of the property is proven not to constitute an ascertained danger to its OUV, and**
- **no hydrocarbon exploitation is pursued without a prior EIA in line with IFC 2012 performance standards and a rigorous assessment of the impacts on the property, in line with the IUCN Advice Note on Environmental Assessment,**

which is to be assessed by a joint World Heritage Centre/IUCN Reactive Monitoring to the property to take place in 2021.

Key recommendations:

In order to address potential and ascertained dangers to the Outstanding Universal Value (OUV) of the property, and in view of the provisions for inclusion of World Heritage properties on the List of World Heritage in Danger, the mission recommends the State Party to:

- 10.** Provide more detailed information on current and potential impacts of **military facilities and activities** on the property's OUV in the next report to the World Heritage Committee, immediately halt any activities that may negatively affect the OUV and employ mitigation measures to prevent or at least minimise the impacts of military facilities and activities;
- 11.** Carefully assess and address the risks of all **hydrocarbon exploration** activities and potential hydrocarbon **exploitation** in proximity of the property and specifically
 - a) provide more detailed information on the current, planned and already undertaken hydrocarbon exploration and/or exploitation activities within the licenses of "Severo-Vrangelski -1", "Severo-Vrangelski -2" and "Yuzhno-Chukotski" " in the next report to be examined by the World Heritage Committee in 2018,
 - b) ensure that the 36 nautical miles protective zone around the property is excluded from the current licenses,
 - c) complete an EIA on hydrocarbon exploration and exploitation respecting IFC 2012 performance standards⁸⁰ and the IUCN Advice Note on Environmental Assessment prior to any exploratory and permanent drilling activities, with a view to withdrawing from those license areas and/or activities that are proven to represent a potential danger to the OUV of the property, and
 - d) develop and implement a strong oil spill emergency response scheme, in collaboration with regional, national and global actors and governments prior to any exploratory and permanent oil drilling activities and marine transport of hydrocarbons.

In order to ensure the integrity and values of the property in the future, the mission recommends the State Party to:

- 12.** Identify the ecological **carrying capacity** of the World Heritage property with respect to human impacts and taking into account the impacts of climate change, through a study on the terrestrial and marine components of the property to establish a critical upper ceiling for human impacts and a pivotal point for decision-making, which should determine
 - a) the regulation of overall human presence (including military personnel and associated staff, reserve staff, researchers, tourists, weather station staff, etc.),
 - b) spatial zoning and season-sensitive regulation of human activities, and
 - c) an overall tourism strategy for the property, which could be the basis for a reflection on an overall policy of tourism development for the Chukotka Region, promoting its rich natural and cultural heritage;
- 13.** Complete the **removal of garbage** and associated clean-up of contaminants within the next five years, and report within the state of conservation reporting process on the planning and implementation for the clean-up of man-made waste, including environmental monitoring data to confirm the remediation of contaminations from the polluted areas;

⁸⁰ IFC (2012)

14. Develop an **emergency response scheme** specifically for the property and strong environmental governance of any future increase in marine traffic in proximity to the property.

In order to continuously improve the management of the property, the mission recommends the State Party to

15. Immediately review and report on the implementation of the **current management plan** and the action plan included therein;

16. Complete and submit to the World Heritage Centre for review, a **revised management plan**, including an updated action plan and a tourism management plan, addressing past and current management issues and providing for adequate financial and human resources to achieve on-going management goals for the entire property (including terrestrial and marine components);

17. Ensure full compliance with the Federal State Budget Institution “State Nature Reserve “Wrangel Island” (FSBWIR) “**rules of behaviour**” of all persons at the property, including management and staff, researchers, military personnel and all visitors;

18. Continue and strengthen **monitoring** at the property, and in particular,
a) extend monitoring to the **marine component** of the property, and
b) systematically assess and monitor the **impacts of climate change**,
in order to accumulate a strong baseline of data, which will provide reliable and relevant information on the state of conservation and tendencies of species and ecosystems as relevant to the OUV of the property and which may be examined and potentially integrated with monitoring that is being conducted across the Arctic, including in other Arctic protected areas.

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ANNEX I: TERMS OF REFERENCE

(as transmitted to the State Party on 18 January 2017)

Joint World Heritage Centre/IUCN Reactive Monitoring Mission Natural System of Wrangel Island Reserve (Russian Federation)

At its 39th session, the World Heritage Committee requested the State Party of the Russian Federation to invite a joint World Heritage Centre/IUCN reactive monitoring mission to the Natural System of Wrangel Island Reserve World Heritage Site (**Decision 39 COM 7B.25**). Since no invitation for the mission had been received from the State Party by the 40th session, the World Heritage Committee reiterated its request in the **Decision 40 COM 7B.98**. The objective of the monitoring mission is to assess the state of conservation of the property and evaluate current and potential impacts from the construction of the military base within the property and from the oil exploration activities undertaken by Rosneft and/or others, as well as other planned activities in the area and their cumulative impacts.

In particular the mission should undertake the following:

1. Evaluate the current and potential impacts of ongoing and planned construction of facilities within the property, as well as associated increased human presence on the island, on the Outstanding Universal Value (OUV) of the property, and assess whether such impacts pose a potential danger to the property, in accordance with Paragraph 180 of the *Operational Guidelines*;
2. Assess the current situation with any ongoing or planned oil exploration activities in the vicinity of the property that might pose a threat to its OUV;
3. Evaluate the progress achieved by the State Party in the elaboration of Environmental Impact Assessments (EIAs) both for construction of facilities within the property and oil exploration activities in its vicinity;
4. In line with paragraph 173 of the *Operational Guidelines*, assess any other relevant issues that may negatively impact on the OUV of the property, including its conditions of integrity and protection and management.

The State Party should facilitate necessary field visits to key locations. In order to enable preparation for the mission, the State Party should provide the following items in appropriate format, including web links, to the World Heritage Centre and IUCN as soon as possible and preferably no later than one month prior to the mission:

- a) The most recent version of the EIA for the construction of facilities within the property and associated activities and/or information on the progress with the preparation of such EIA;
- b) Detailed information on the current status of any ongoing and planned oil exploration projects in the vicinity of the property and EIAs for such projects, including specific assessment of their potential impacts on the OUV of the property, in line with IUCN's Advice Note of Environmental Assessment;

c) The most recent version of the management plan of the property;

The mission should hold consultations with the relevant authorities of the Russian Federation, particularly the Ministry of Natural Resources and Ecology, the management authority of the Wrangel Island Zapovednik and the relevant authorities responsible for the construction of facilities within the property. In addition, the mission should hold consultations with a range of relevant stakeholders, including: representatives of the oil industry; non-governmental organizations (NGOs), relevant scientists, researchers and experts.

Based on the results of the above-mentioned reviews, assessments and discussions with the State Party representatives, authorities and stakeholders, the mission should prepare a concise report on the findings and recommendations within six weeks following the site visit. The mission's recommendations to the Government of the Russian Federation and the World Heritage Committee should have the objective of providing guidance to the State Party that should ensure the ongoing conservation of the property's OUV. It should be noted that recommendations should be provided within the mission report and not during the mission implementation.

ANNEX II: ITINERARY AND PROGRAMME; MAIN PERSONS MET

7-9 August 2017	<p>Travels of UNESCO/IUCN Delegation to Moscow</p> <p>Meeting with Mr Vladimir Medinsky, Minister of Culture of the Russian Federation</p>
10 August 2017	Flight from Moscow to Pevek via Jakutsk
11 August 2017	<p>Arrival of UNESCO/IUCN Delegation and Russian Delegation in Pevek</p> <p>Paperwork in the Federal Migration Service</p> <p>Opening meeting with Ms Irina Forminykh, Deputy Director, Department of International Cooperation, Ministry of Natural Resources and Environment of the Russian Federation and Mr Amirkhan Amirkhanov, Federal Service for Supervision of Natural Resource Usage of the Russian Federation and former Deputy Minister and Deputy Chairman of the Russian State Environmental Administration</p> <p>Visit of the local history museum of Pevek, meeting with its Director</p> <p>Visit of the new offices of the State Budget Institution “State Nature Reserve “Wrangel Island””, meeting with Mr Alexander Skripnik, Deputy-Director</p> <p>Dinner at the offices of “State Nature Reserve “Wrangel Island””, discussion of the mission agenda items.</p>
12 August 2017	<p>Flight by helicopter from Pevek to Neozhidannaya (“Unexpected”)</p> <p>Meeting with Mr Alexander Gruzdev, Director of the State Budget Institution “State Nature Reserve “Wrangel Island””</p> <p>Field trip to Cape Thomas along “Unexpected River”, Western plateau and Western coast</p>
13 August 2017	<p>Field trip from Neozhidannaya (“Unexpected”) to former village of Somnitelnya (“Doubtful”) along “Mammoth River” and “Krasin Bay”</p> <p>Cruise ship landing in “Krasin Bay” on 180° Meridian</p> <p>Visit of “Doubtful” village</p>
14 August 2017	<p>Field trip to “Doubtful Bay” and “Doubtful Spit”</p> <p>Field trip to the “Doubtful Mountains” along former airport of “Doubtful” and “Minnev mountain”</p>

15 August 2017	<p>Debriefing meeting with Mr Alexander Gruzdev, Director of the State Budget Institution “State Nature Reserve “Wrangel Island””, Ms Irina Forminykh, Deputy Director, Department of International Cooperation, Ministry of Natural Resources and Environment of the Russian Federation and Mr Amirkhan Amirkhanov, Federal Service for Supervision of Natural Resource Usage of the Russian Federation</p> <p>Flight by helicopter from “Doubtful” to Anadyr via Mys Schmidtka</p> <p>Welcome and dinner with Mr Nikolaev Leonid Anatolievich, Vice-Governor, Deputy Chairman of the Government, Head of the Agricultural Policy and Nature Use Department of the Chukotka Autonomous Okrug</p>
16 August 2017	<p>Meeting with Ms Irina Forminykh, Deputy Director, Department of International Cooperation, Ministry of Natural Resources and Environment of the Russian Federation and Mr Amirkhan Amirkhanov, Federal Service for Supervision of Natural Resource Usage of the Russian Federation:</p> <p>Visit of local history museum</p> <p>Presentation and discussion of mission findings</p>
17 August 2017	Flight from Anadyr to Moscow
18 August 2017	<p>Planning meeting of mission team</p> <p>End of mission</p>

ANNEX III: COMPOSITION OF MISSION TEAM

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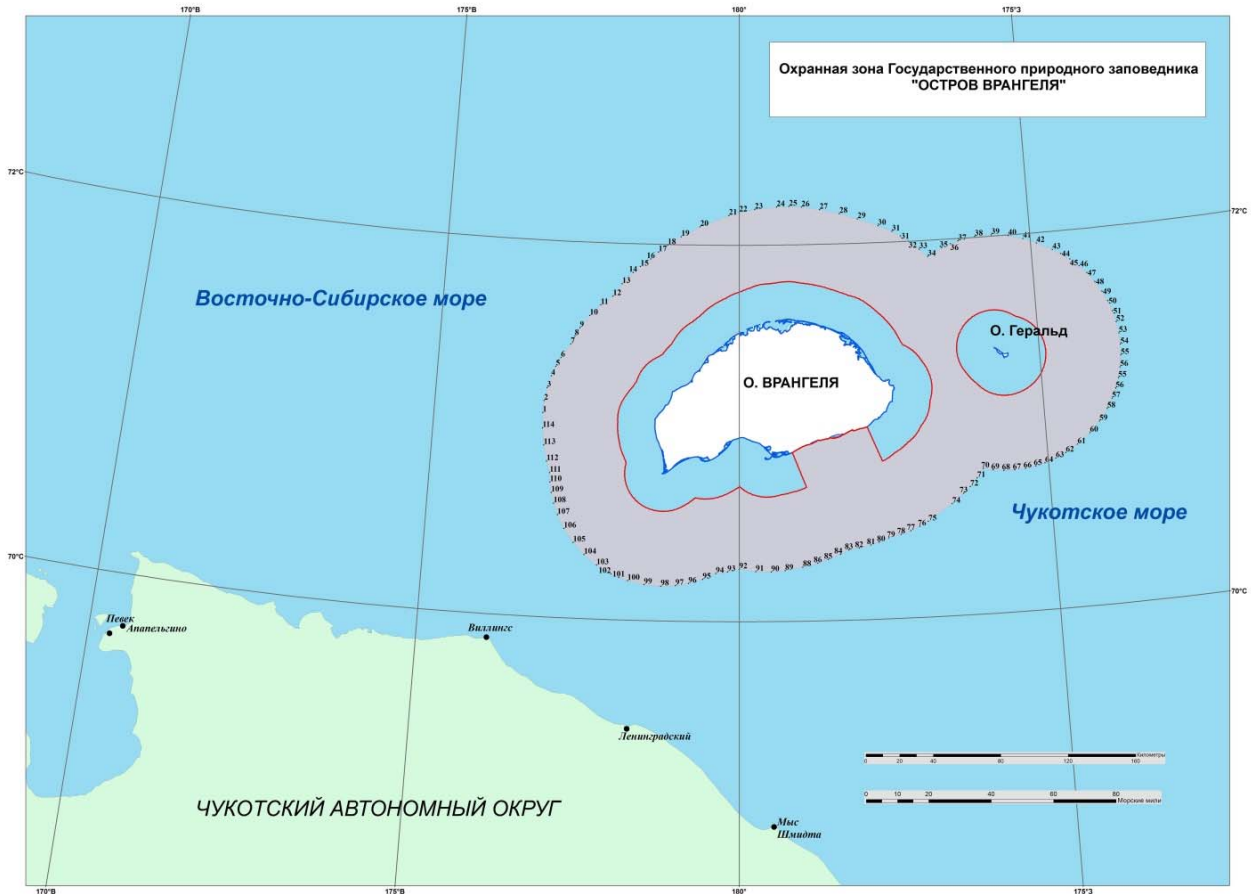
Europe and North America Unit, UNESCO World Heritage Centre

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ANNEX IV: MAPS OF THE PROPERTY



Map 1: The terrestrial and marine components of NSWIR and the 36-mile protective zone (light red). Property boundaries are indicated by the red line (Source: Additional information provided to the mission team after the mission).

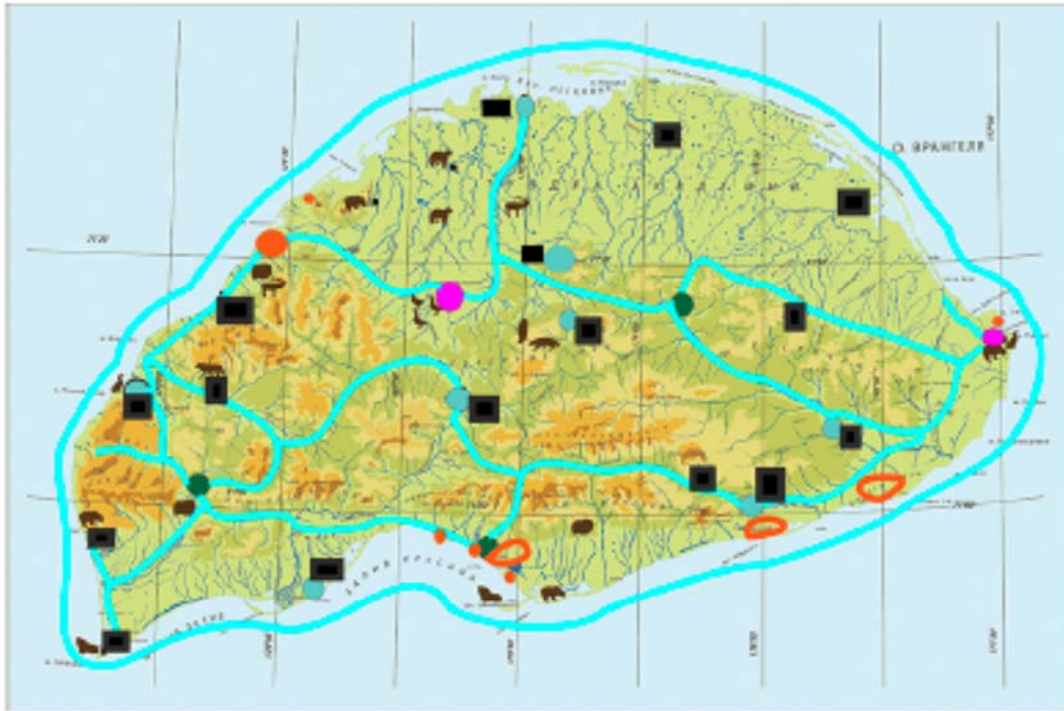








Fig. 3. Location of the field stations of the reserve, ecotouristic routes and bases on the island. The main places of anthropogenic pollution.

-  Places of anthropogenic pollution
-  New installed guest houses
-  Planned locations of the guest houses and cordons
-  Existing cordons and field stations
-  Places of landings of tourists from ships
-  Routes on the island

Map 2: Tourism and field infrastructure on Wrangel island⁸¹

⁸¹ Source: MNRE (2013)

ANNEX V: PHOTOGRAPHS



Picture 1: Former field station of “Unexpected”
© Jenna Boon, 2017



Picture 2 (left): New field station of “Unexpected” © Clemens Küpper, 2017



Picture 3 (right): New guesthouse at “Unexpected” © Clemens Küpper, 2017



Picture 4: Tracks between the former settlement of “Doubtful” and “Tundrovoy Peak”
© Jenna Boon, 2017



Picture 5: Garbage distributed around the former settlement of “Doubtful”
© Jenna Boon, 2017