

**APPENDIX 3****International Requirements for Biodiversity****Purpose**

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To specify international standards and other requirements formally adopted by Sakhalin Energy in relation to *Biodiversity*, in accordance with Russian Federation, Lender and Shareholder requirements.

This document shall be reviewed based on operational data and revised standards where applicable.

**Who is this for?**

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- *Managers;*
- *HSE Professionals.*

**Requirements**

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Sakhalin Energy shall comply with the provisions of the following internationally recognized standards and conventions and other requirements (subject to any exceptions, deviations and express non-conformances identified in the section "Narrative" below).

This document consists of three parts.

**Part 1: Migratory species**

Part 1 provides a narrative against environmental state-level conventions and treaties which the Russian Federation has yet to ratify. Subject to its overriding obligation to comply with Russian law, the Company will comply with the spirit of these conventions (in the form such conventions are in force at the date indicated) which are capable of application to private entities and which it is feasible for such an entity to fulfil having used its reasonable endeavours to do so, in each case to the extent as set out in Part 1 below. These conventions/treaties currently include one item:

- Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention), 1979, incorporating the African-Eurasian Migratory Water Bird Agreement and The Agreement on the Conservation of Bats in Europe.

**Part 2** provides a list of International Conventions and Treaties ratified by the Russian Federation and deemed applicable to the Sakhalin 2 Project. By virtue of its commitment to comply with material HSE and social law under the Common Terms Agreement, Sakhalin Energy is already under an obligation to comply with those provisions of the HSE and social international conventions listed which apply to private entities under Russian law and which are material to the Project.

**Part 3** lists other applicable international requirements relevant to Biodiversity.

## Part 1: Migratory species

International Standards and Guidelines		Narrative
<p><b>Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention), 1979, incorporating the African-Eurasian Migratory Water Bird Agreement and The Agreement on the Conservation of Bats in Europe.</b></p> <p>The Convention arose in 1972 from a recommendation by the United Nations "Man and the Environment" conference in Stockholm, and entered into force in November 1983. There are currently 114 parties –to the Convention, including most countries in Europe as well as the European Union, many African states and a growing presence in South America, Asia and Oceania (as on March 2011).</p> <p>The Bonn Convention aims to improve the status of all threatened migratory species through national action and international Agreements between Range States (the term used to describe countries that exercise jurisdiction over any part of a species' habitat) of particular groups of species. There are two appendices to the Convention, which lists migratory species that would benefit from conservation measures taken by Range States.</p> <p><b>Appendix I</b></p> <p>Appendix I lists species which are in danger of extinction throughout all or at a significant proportion of their range, and so are given full protection. Range States are required to prohibit the taking of these animals, with a few exceptions. The definition of "taking" includes such activities as hunting, fishing, capturing, harassing and deliberate killing. Range States of Appendix I species also aim to conserve their habitat, counteract factors impeding their migration, and control other factors that might endanger them. Appendix I species include white-tailed eagle and Steller's Sea Eagle nesting on Sakhalin Island.</p> <p><b>Appendix II</b></p> <p>Appendix II species includes dolphins, seals, the monarch butterfly and many species of seabirds e.g. the White Tailed Eagle and Stellers' Sea Eagle, petrels, albatrosses and waterfowl. The Convention provides for two forms of Agreement for species listed in Appendix II:</p> <ol style="list-style-type: none"> <li>1. Agreements intended to benefit migratory species, especially those with an unfavourable conservation status, over their entire range;</li> </ol>		<p>Sakhalin Energy has adopted and maintains a Biodiversity Standard, which includes specifications relating to migratory species.</p> <p>The Russian Federation is not a signatory party to the Bonn Convention. However, it does participate in specific programmes with Range State parties and programmes convened through the Convention, notably the Memorandum of Understanding for the conservation of the Siberian crane.</p> <p>Appendix I of the Bonn Convention lists a number of bird species on Sakhalin (e.g. white tailed sea eagle, Steller's sea eagle, swan goose, Baikal teal and spotted greenshank), and Appendix II also includes a larger number of migratory bird species that may be regularly present on Sakhalin during migration or that are sporadic visitors to the island. A number of cetacean species are listed in Appendix I and Appendix II, but not the Pacific western gray whale.</p> <p>For two of the species included in Appendix I of the Bonn Convention (Steller's sea eagle and white tailed eagle) Sakhalin Energy has undertaken a significant range of activities associated with its protection and conservation during activities associated with the Sakhalin-2 project. These include the undertaking of a number of ornithological surveys to obtain baseline information on protected birds inhabiting onshore project areas and to determine migratory bird habitat in coastal lagoon areas for the purposes of input into coastal sensitivity mapping for oil spill response planning.</p> <p><b>Programme for Research, Monitoring and Conservation of the Sea Eagle Population of north-east Sakhalin</b></p> <p>In Autumn 2003, Sakhalin Energy implemented a specific Programme for Research, Monitoring and Conservation of the Sea Eagle Populations of north-east Sakhalin. Firstly, the programme sought to verify and monitor nest locations in the vicinity of Sakhalin Energy project areas and to develop suitable mitigation measures for use during the construction</p>



## Biodiversity Standard

Rev 05

International Standards and Guidelines		Narrative
<p>2. Agreements for populations of species that periodically cross national jurisdictional boundaries, but are not necessarily migratory under the definition provided by the Convention.</p> <p>The Seventh Conference of Parties approved proposals to add to the Appendices a number of great whales, The Sixth Conference agreed proposals to add 38 species to Appendices I and II of the Convention including petrels and various species of sturgeon.</p>		<p>period.</p> <p>In the operational phase, this programme aims to monitor and conserve Steller's and white-tailed sea-eagles in the project footprint in north-east Sakhalin.</p> <p><b>Protection of Other Bird Species</b></p> <p>With respect to other bird species that are listed in Appendix I and Appendix II of the Convention and the Japan-Russia Bird Treaty and which have the potential to be affected by Sakhalin-2 activities, Sakhalin Energy has developed specific management and mitigation measures designed to conserve rare bird species populations (those specifically listed in the Russian and Sakhalin Oblast Red Data Books). Prime among these measures are:</p> <ul style="list-style-type: none"> <li>• Minimising or preventing disturbance at critical periods (e.g. during the nesting/breeding season); and</li> <li>• Maintaining ecosystems and supporting habitats with respect to all of their functional properties and uses for birds (i.e. processes and structure that support breeding, feeding, migrating and wintering usage).</li> </ul> <p>The first of these aspects is dealt with through the sensitive timing of construction works and minimizing the potential zone of influence in areas of known usage by RDB and migratory bird populations. Data obtained from baseline surveys and initial pre-construction monitoring was used in identifying sites (i.e. habitats) of particular importance within the influence of the project area (e.g. along the pipeline route). Specific mitigation measures were developed as part of the EIA process and implemented in these areas to avoid or minimize potential disturbance to RDB and important migratory bird populations during the construction works.</p> <p>Sakhalin Energy's mitigating measures aim to ensure that the ecological processes that support habitat structure and function (i.e. ecosystem processes) for RDB and migratory birds are maintained during construction and operation phases. Operational phase monitoring aims to identify potential impacts of the project and implement appropriate controls as required.</p>



Biodiversity Standard

Rev 05

International Standards and Guidelines		Narrative
		<p><b>Marine Mammal Protection Plan</b></p> <p>Sakhalin Energy has developed and maintains Marine Mammals Protection Plan.</p> <p>Marine mammal protection is an important issue that will remain relevant for the Sakhalin offshore oil and gas development (approximately 50 years).</p> <p>In particular, the population of western gray whales (<i>Eshrichtius robustus</i>) that occurs along the NE coast of Sakhalin Island, close to Sakhalin Energy's oil and gas developments, is classified as <b>endangered</b> in the Red Data Book of the Russian Federation, and is therefore protected under Russian Federation law. Sakhalin Energy is thus legally obliged to ensure that its activities do not harm this population.</p> <p>This marine mammal protection plan (MMPP) defines mitigation measures and restrictions that shall be applied to Sakhalin Energy's offshore activities.</p> <p><b>Sakhalin Energy Biodiversity Action Plan</b></p> <p>Sakhalin Energy developed and maintains a Biodiversity Action Plan (BAP) for areas generally considered as vulnerable, and for habitats that support species included as Endangered or Critically Endangered in the IUCN Red List of Threatened Species, and "Red Data Book" species of the Russian Federation, and of the Sakhalin Oblast. The structure and content of the BAP comply with the International Petroleum Industry Environmental Conservation Association (IPIECA) and OGP Guidelines.</p> <p>BAP also includes the programs on protection of rare species of birds, whales and Sakhalin Taimen.</p>



**Part 2: List of International Conventions and Treaties ratified by the Russian Federation and deemed applicable to the Sakhalin 2 Project**

<b>Convention</b>	<b>Date</b>
<b>Habitats, Biological Diversity and Heritage</b>	
<p><i>Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)</i>            General provisions: the licensing of trading operations; surveys of status of protected species populations; creation of national control authorities network; relationships between law-enforcement agencies, customs, non-governmental organizations and private persons; Convention requirements implementation control; species classification; rules of practice development.</p>	Washington, 1973
<p><i>Convention concerning the Protection of the World Cultural and Natural Heritage</i>            General provisions: responsibilities for identification of cultural and natural heritage and preservation for the future generations; inclusion of heritage preservation to the development programs; scientific and technological research, taking of necessary actions for legal, scientific and management and financial protection of population, support in researching and personnel training, provision of the equipment; loaning and subsidy provision.</p>	Paris, 1972
<p><i>United Nations Framework Convention on Biological Diversity</i>            General provisions: preserving of biodiversity, sustainable use of its components, fair and equal distribution of profits of genetic resources use.</p>	Rio de Janeiro, 1992
<p><i>International Convention for the regulation of Whaling</i>            General provisions: preserving of pods of whales for the future generations, which is the natural wealth.</p>	Washington, 1946
<p><i>Convention for the Conservation of anadromous stocks in the North Pacific Ocean</i>            General provisions: the establishment of the efficient international cooperation mechanism to support in preservation of anadromous species in the North Pacific Ocean</p>	Moscow, 1992
<p><i>Convention on Wetlands of International Importance especially as Waterfowl Habitat</i>            General provisions: Detection of national sites to include in list of wetlands of international importance; determination of international responsibilities for preservation, management and rational use of resources migratory waterfowl species; establishment of protected wetlands; information exchange, wetlands management trainings for personnel; collection and distribution of information.</p>	1971
<p><i>International Plant Protection Convention</i>            General provisions: Provision of cooperative and effective actions for prevention of entering and spreading of plant diseases and pests and assistance in control.</p>	Rome, 1951
<b>Other</b>	
<p><i>Convention on Transboundary Effects of Industrial Accidents</i>            General provisions: taking the necessary actions for provision and maintaining of emergency preparedness aimed at industrial incidents recovery measures; support to active international cooperation during and after incidents.</p>	Helsinki, 1992
<b>Bilateral Agreements</b>	
<p><i>Russia - Japan Migratory Bird Treaty</i>            This convention between the governments of the Union of Soviet Socialist Republics and the government of Japan (signed in 1973) concerns the development of collaborative measures to protect bird species and populations that migrate between</p>	1973



<p>Russia and Japan. In summary, the Treaty includes and covers the following aspects:</p> <p>Article I: in the convention the term "migratory birds" indicates: a) birds which can be shown to migrate through the use of ringing or other comparable measures between the two countries; and b) subspecies and forms of birds common to both countries.</p> <p>Article II: The acquisition and prohibition of migratory birds and the collection of their eggs will be prohibited as will be the sale, purchase or exchange of the birds listed in the Treaty, their eggs, products or parts. Exceptions to the prohibition(s) can be made in accordance with laws and orders of each contracting party in the following cases: a) for scientific purposes, and breeding programmes that do not contradict the purposes of the convention; b) for purposes of the protection of human life and property; and c) during the hunting season in areas where this is permitted.</p> <p>Article III: The contracting parties will agree the species and subspecies of birds that are potentially under threat and to which the Treaty should apply and inform each other of the measures that are to be implemented to protect these birds.</p> <p>Article IV: The contracting parties will exchange data and the publications concerning studies on migratory birds and those that are threatened with disappearance. Both parties will also contribute to the development of coordinated research on migratory birds.</p> <p>Article V: Each contracting party will apply efforts to create reserves and other establishments for the purpose of the management and protection of migratory birds, birds that are under the threat of disappearance and their habitats.</p> <p>Article VI: Each contracting party will apply and adopt appropriate measures to maintain and improve the habitats of birds, in accordance with articles II and III. In particular, each party will: a) develop methods of monitoring to detect potential threats and damage to migratory birds and their environment; b) make efforts for the adoption of the necessary measures to control the import of animals and plants, that are acknowledged as those that could potentially threaten the maintenance of migratory bird populations; c) to make efforts for the adoption of necessary measures of control over import into the regions, including islands, which could upset or destroy the existing ecological equilibrium.</p> <p>The Treaty also allows for consultation between the parties in achieving the stated objectives.</p> <p>For a description of Sakhalin Energy measures, refer to Part 1 above.</p>	
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**Part 3 – Additional Requirements**

- IFC Performance Standard 6, January 2012
  - Limitation: Sakhalin Energy notes that the mechanisms for applying “no net loss” and “net gain” concepts are not well developed and established internationally. Sakhalin Energy’s interpretation of the “net gains” concept is that net gains are additional conservation outcomes that protect and conserve biodiversity, including monitoring programmes that add to the scientific understanding of an endangered species or critical habitat, and that are relevant to project impacts.
- IFC EHS Guidelines. Onshore Oil and Gas Development, April, 2007
- IFC EHS Guidelines. LNG Facilities, April, 2007
- EC Council directive 92/43/EEC (1992) on the Conservation of Natural Habitats and of Wild Fauna and Flora amended by the Council Directive 2006/105/EC of 20 November 2006
- EC Council Directive 78/659/EEC of 18 July 1978 on the quality of fresh waters needing protection or improvement in order to support fish life amended by Council Regulation №807/2003 of 14 April 2003
- EC Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds amended by Directive 2008/102/EC of the European Parliament and of the Council of 19 November 2008



## BIODIVERSITY STANDARD

**Mandatory**

### International Requirements for Biodiversity

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- Biodiversity Action Plans shall be prepared in accordance with IPIECA and OGP Guidelines.
- Royal Dutch Shell plc Biodiversity Manual.