Introduction

Sakhalin is a large island off Russia’s Asian coast, located at the Russian Far East (RFE), between the Sea of Okhotsk and the Sea of Japan. It is separated from the mainland of the Russian Federation by the Tatar Strait and from the northernmost island of Japan, Hokkaido, by La Pérouse Strait.

The coastline of Sakhalin Island, which is about 965 km. long, hosts great marine biodiversity. Six species of pinnipeds occur in the eastern Sakhalin Island region, including four species of true or ice seals, ringed seals (Phoca hispida), largha seals (Phoca largha), ribbon seals (Histriophoca fasciata) and bearded seals (Erignathus barbatus), which are closely associated with the ice through the winter spring season and two species of eared seals, the northern fur seal (Callorhinus ursinus) and the steller sea lion (Eumetopias jubatus), which are mainly open-water visitors to the area. Seventeen species of cetaceans are known to occur in these area as well. The majority of cetaceans enter the Sea of Okhotsk to feed during spring and autumn. With the onset of winter, they leave for the Pacific Ocean or the Sea of Japan. Only bowhead whales and beluga whales are year round inhabitants of the Sea of Okhotsk. The cetacean species most likely to be encountered near the Piltun and Lunskoye oil fields from summer to autumn are western gray whales (Eschrichtius robustus), North Pacific right whale (Eubalaena japonica), minke whales (Balaenoptera acutorostrata), killer whales (Orcinus orca), harbor porpoise (Phocoena phocoena) and common dolphin (Delphinus delphis). Beluga whales (Delphinapterus leucas) are most likely to be seen during their spring migration. The eastern coast provides the only summer feeding grounds for two of the world’s most critically endangered populations of whales, the Western Pacific gray (Eschrichtius robustus) and the North Pacific right whale (Eubalaena japonica).

The bays along the coast also provide habitats and migration stopovers for a large number and variety of birds (e.g. during the autumn migration in the North East and Northern Parts of Piltun Bay, seven to ten thousand Bewick’s swans (Cygnus columbianus bewickii), 20-25,000 ducks and 2-3000 gulls are present in this area). The two pipeline landfall areas for the offshore platforms are located on Sakhalin’s northeastern coast, which is a stretch of coastline characterised by a rich ornithofauna. Rare and protected species occurring on the northeastern coast of Sakhalin are listed at http://www.sakhalinenergy.ru/en/library.asp?p=lib_sel_eia20032005&l=eia_2003.

The Sea of Okhotsk is of national importance to Russia as a fishing ground, supporting a high diversity of species. Sakhalin’s fishing industry is predominantly concentrated towards the south of the Island, although fishing activities and settlements occur throughout the island’s coastal areas.

There is a high risk of oil spills in the Sea of Okhotsk region due to the offshore oil developments and the increase of traffic along the northeastern shore of Sakhalin Island near highly sensitive areas. The dangerous sea-ice conditions off Sakhalin Island in winter will make it a challenge to respond successfully to an oiled wildlife incident. In the near future, the risk may increase much more due to the continued development of the oil industry in the region. It is said that there a total of nine projects around this area called Sakhalin I (one) to IX (nine) will be developed. Sakhalin I and II have almost completed their “Phase I”. The projects of Sakhalin III to VI are at the stages of contract, agreement or facility design. Projects beyond Sakhalin VII are still ambiguous. Two 800 km pipelines will cross Sakhalin Island from northeast to south. A liquefied natural gas (LNG) plant is planned to be built as well.

Regional Seas
The North-West Pacific Region (NOWPAP)

Past experience
In 1999, a small oil spill occurred following an accident on the Vityaz Marine Terminal where 3.5 tonnes of oil were spilled. In September 2004, the dredger ‘Cristoforo Colombo’ grounded during the heavy typhoon winds between Kholmsk Fishing Port and Kholmsk Commercial Marine Port. Three tanks of the vessel were damaged during the accident, spilling about 190 tonnes of heavy oil and fuel in the coastal waters of Kholmsk. Between 2 and 5 km of...
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Response: the role of the authorities
The competent national authority for oil spill management and clean-up at sea is the State Marine Pollution Control & Salvage Administration (SMPCSA) of the Ministry of Transport. The State Marine Pollution Control, Salvage and Rescue Administration (MPCSA) which includes the State Maritime Search and Rescue Coordination Centre (SMRRC) in Moscow and the eight Maritime Search and Rescue Coordination SubCentre (MRRC) spread along the regions, serves as the national and international contact point for marine pollution emergency situations. The Ministry of Emergency Situations (EMERCOM) is responsible for shoreline clean-up operations, in cooperation with local municipalities.

The Ministry of Natural Resources of the Russian Federation (MNR) of the Sakhalin region will assume responsibility for an oiled wildlife response, which will be coordinated by the Committee for Natural Resources and Environmental Protection of this Ministry. The Federal Service for Area of Natural Resources Supervision (Rosprirodnadzor), which is the Russia’s Environmental Protection Agency, will also assume responsibility in these matters. The Federal Service for Veterinary and Phytosanitary Supervision (Rosselkhoznadzor) of the Ministry of Agriculture will also be involved in the oiled wildlife response. As yet the division of responsibility among the authorities is not clear.

Sakhalin Energy signed an agreement with the Sakhalin Oblast and other partners in the oil and gas industry to integrate their efforts and resources to respond to emergencies associated with the production, offloading and transportation of hydrocarbons.

Oiled wildlife response
Formal guidelines?
An Oiled Wildlife Response Plan (still a draft) has been developed by Sakhalin Energy Investment Company Ltd. (Sakhalin Energy). International Fund for Animal Welfare (IFAW) was involved in producing such a Plan for Sakhalin-II, and the IFAW ER team is mentioned in it to lead a larger response. Pending the final version by the end of 2007.

The scope of the Plan will cover all Sakhalin Energy operations on Sakhalin Island, including areas exposed to potential impact of the "worst case" oil spill scenario.

The OWR Plan contains information on the following:
- Measures aiming to prevent wildlife becoming oil and response to oiled wildlife
- Required capability and resources
- Response procedures
- Procedures for coordination and cooperation between the company and third party OSR capabilities and resources
- Other information including waste management, training and exercise programme, health and safety issues etc.
- A set of sensitivity maps for the whole east coast and the south part of Sakhalin. The maps are kept electronically at Sakhalin Energy Investment Company (SEIC)

Sakhalin Energy is still working on different aspects of the Oiled Wildlife Response plan, including identifying and purchasing wildlife response equipment, designing a wildlife rehabilitation center and carrying out training programs for wildlife responders.

Exxon Neftegas Limited and SEIC are discussing a contract in which International Fund for Animal Welfare (IFAW) would provide wildlife response services through a wildlife expertise call out contract.

Response objectives and strategy
In case of an oiled wildlife incident, the Ministry of Natural Resources will most likely allow a wildlife response, but local expertise and permanent facilities for such a response is non existent.
Euthanasia or rehabilitation?
Rehabilitation will be attempted for those animals that have high probability of surviving the necessary treatment. Guidelines for euthanasia will be described in the plan.

Impact assessment
Dead animals will be collected and made available for scientific impact assessment before they will be disposed of.

Notification and early response
In case of an oiled wildlife incident, SEIC/Exxon Neftegas will notify the Ministry of Natural Resources of the Russian Federation and local groups. Most likely foreign expertise will be called in and up to three temporary wildlife hospitals can be established on Sakhalin, where oiled wildlife will be sent and treated.

Wildlife responders
There are no permanent large-scale wildlife rescue centres in Sakhalin Island. A seal sanctuary centre (specialized in pup seals) in Vladivostok (Far East) has been established by two wildlife responders who were trained at the Irish Seal Sanctuary (Ireland). There are a few captive marine mammal facilities spread in Russia that might be used to accommodate marine mammals, if needed.

The most active local organisation is the Sakhalin Environment Watch (SEW), which collaborates with national and international NGOs to protect the forests and marine ecosystems of Sakhalin from on and offshore oil and gas extraction and monitors the impacts of the Sakhalin II project. A number of grassroots nonprofit organisations work on environmental issues on the island including the Sakhalin Wild Nature Fund, the Wild Salmon Center and the Green Patrol which should be considered as relevant for the response to a future oiled wildlife incident. There are other national organisations such as the Russian Bird Conservation Union, the Marine Mammal Council and the Utrish Marine Station of the Severtsov Institute of Ecology and Evolution of the Russian Academy of Sciences (see the CWR Profile of Russia-Black Sea, Russia-Caspian Sea and Russia-Baltic) that could assist with such a response. The overseas organisation California-based Pacific Environment, which is very active in Sakhalin, works with grassroots organisations regarding the Sakhalin-1 and Sakhalin-2 Oil and Gas Projects.

Birds
Under the agreement of SEIC and ENL, in case of an oiled wildlife incident, oiled birds will be treated in three buildings used for storage of wildlife response equipment. Two of those facilities are located at the northeastern part of the island (De Kastry and Chaivo), while the other is located in the south (Prigorodnoye asset). It is not clear whether there is any local group willing and able to assist with oiled bird rehabilitation (e.g. Endangered Bird Protection Center).

In September 2006, the International Fund for Animal Welfare (IFAW) provided an Oiled Wildlife Response Course in Yuzhno-Sakhalinsk for sixty people. Participants were representatives from local government agencies, biologists, ecologists and veterinarians from Sakhalin and the Far East. A list of locals is available to provide assistance as a source of volunteers and local knowledge on the species and the distribution at the time of an incident.

Over the past years a number of ornithological surveys, monitoring programmes and research studies have been undertaken by the Fauna Information and Research Centre, the Far Eastern State University, the Sakhalin State University and the Amur-Ussurian Centre for Biodiversity of Birds (Laboratory of Ornithology, Institute of Biology and Soil Sci, Far-East Branch, Russian Academy of Sciences). The most important areas for birds on the northeast coastline of the Island and the different species that can be threatened by offshore oil and gas development on the Northeast shelf have been identified.

Marine mammals
Marine mammal rescue operations are not managed by any local groups in Sakhalin. However there is a Russian Federation Group for Strategic Planning of Gray Whale Studies, which includes leading specialists on marine mammals such as the group of behavior and bioacoustics of marine mammals of the Shirshov’ Institute of Oceanology (Russian
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Academy of Sciences), the Acoustic Noise Lab (Shirshov’ Institute of Oceanology, RAS), the Institute of Cultural and Natural Heritage of the RAS, the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), IFAW Russia, the Marine Mammal Council, the Scientific Advisory Committee on Marine Mammals of the State Ichthyologic Commission, WWF Russia and the Section of aquatic biological resources and marine environment of the Russian Ministry of Nature Resources.

The Western Gray Whale Advisory Panel by the World Conservation Union (IUCN) established for dealing with issues surrounding oil and gas development in the summer feeding habitat of the western gray whale population could bring international expertise.

Intensive marine mammal surveys with detailed information regarding cetacean and pinniped seasonal distribution around the eastern and southern coastal waters of Sakhalin have been carried out by the Sakhalin Research Institute of Fisheries and Oceanography (SakhNIRO) of the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), the Pacific Ocean Scientific Research Institute of Fishery and Oceanography (TINRO) and the Far-Eastern Hydrometeorological Scientific Research Institute (DVNIGMI).

Many international NGOs are actively involved in programmes and projects in relation to marine conservation and in particular oil and gas issues, including WWF-Russia, Greenpeace-Russia, Friends of the Earth-Japan, the World Conservation Union (IUCN). Although they are not involved in rehabilitation activities, they may be useful in case of a future incident.

At the regional level, the Pollution Monitoring Regional Activity Centre (POMRAC) of Pacific Institute of Geography of Far Eastern Branch of the Russian Academy of Sciences may be able to provide assistance.

Cooperation between stakeholders
There is an established co-operation between SEIC, Exxon Neftegas Limited, IFAW, IBRRC, IUCN, OSRL.

Permanent facilities
There are no large permanent rehabilitation facilities. Under the SEIC wildlife response plan, up to three centres will be built if needed. Requirements for dealing with 1000 oil affected birds ideally will include the following:

a) Water supply of up to 600 cubic metres per day
b) Storage space for equipment and consumables such as detergent, veterinary medical supplier and nutritional supplements
c) A wildlife holding area
d) A wash and rinse area with capability to heat the fresh water supply and hold and dispose oil and detergent contaminated water.
e) Outdoor open space for temporary holding pools and cages
f) Waste storage and disposal for both oil contaminated solid waste and waste water. (Permanent storage facility not necessarily required. Temporary tanks such a Fast tanks can be used to hold oil and detergent contaminated water until it is transported for disposal or disposed of using on-site treatment facilities).
g) Facilities such as rest areas, toilets and canteen to support around 130 or so staff at peak activity.

Current processes
The oiled wildlife response plan is being developed and is expected to be officially implemented by the end of 2007.

Documentation and references
General references

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