Report of the ISRP Follow-up Workshop
- an account of discussions, observations, and suggestions made at the workshop.

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FOREWORD

Following the release of the report by IUCN’s Independent Scientific Review Panel (ISRP) in February, 2005, Sakhalin Energy Investment Company (SEIC) announced its intention to respond constructively. Not only did SEIC opt for the most risk-averse alternative pipeline routing for Sakhalin II Phase 2 but SEIC as well as the potential Lenders expressed interest in hearing the views of former ISRP members on SEIC’s revised plans and on the extent to which SEIC’s response did or did not address the key findings of the ISRP. It was in this consideration that IUCN accepted SEIC’s proposal for this workshop.

In planning for the workshop, IUCN (and indeed all other parties involved) sought to achieve a difficult balance under serious time constraints. The intent was to respond to the needs for informed decision making by the Company and the potential Lenders whilst respecting IUCN’s own values, with regard to transparency, inclusiveness and independence. That resulted in a workshop with participants representing diverse, and sometimes conflicting, perspectives, interests, knowledge bases and expectations. IUCN commends participants of the workshop for their constructive engagement. The workshop facilitated the exchange of information and debate on key issues as envisaged. In addition, the workshop contributed to developing a shared understanding of the issues and challenges and generated useful ideas for the future. It was a successful workshop although some wider expectations clearly remained unmet. The reader of this report should not expect to find prescriptive conclusions, or recommendations. Nor should the reader expect to find anything that could be interpreted as endorsement or disapproval of any plans and decisions of SEIC or the potential Lenders. Such outcomes were explicitly precluded by the workshop’s terms of reference which had been agreed in advance.
EXECUTIVE SUMMARY

On 15 February 2005, IUCN released the Report\(^1\) of an Independent Scientific Review Panel (ISRP) on the potential effects of Phase 2 of the Sakhalin II oil and gas development project (the Project) of the Sakhalin Energy Investment Company (SEIC). The Report focused on the potential effects of oil and gas exploration and production on the critically endangered western gray whale (WGW) population and associated biodiversity. The ISRP’s review was undertaken to inform SEIC of threats to the WGW, as well as the suitability and efficacy of ongoing and planned research and mitigation measures. That Report was also intended to inform potential lenders (the Lenders) and other stakeholders of the Project.

The aim of the follow-up Workshop was to provide SEIC with feedback on their response to the ISRP Report and to contribute to the Lenders’ understanding of that response. Both SEIC and the Lenders had expressed interest in hearing the views of former ISRP members on SEIC’s revised plans for addressing potential threats to WGWs from the Project, and on the extent to which SEIC’s response did or did not address the key findings of the ISRP. The small size of the WGW population leaves little or no allowance for error in mitigation planning and implementation. Thus there was an expectation that the highest international standards and the highest level of international expertise would be needed to assess and develop mitigation measures further. In this respect, it was clear that a number of issues remained to be addressed more fully with SEIC.

The Workshop addressed a number of issues raised in the ISRP Report and also by the SEIC response. Major potential effects and possible mitigation measures were discussed and suggestions made in relation to their mitigation. An immediate course of action was identified to evaluate the adequacy of mitigation measures for summer 2005 construction work, in particular, noise mitigation. Comments were made on the response by SEIC to other key issues identified in the ISRP Report, namely: cumulative effects; collision/ship-strike; oil exposure; physical disturbance to WGW feeding habitat; and PA-B Platform location and installation.

SEIC provided some clarification on a number of issues and committed to providing further information, where required. Most participants felt that more dialogue would be beneficial. Although some additional cost-effective mitigation measures were identified, a fundamental problem, underlined at the Workshop, was that a number of issues raised in the ISRP Report and Workshop discussion could not be resolved then and there. These issues will be long-term and some participants considered that regular feedback from an independent group would be required to guide ongoing decision-making. Such a group was not currently in place and so the issues associated with the summer 2005 construction activities could not yet be addressed by it. Consequently, the Workshop devoted time to the long-term need for such an independent oversight or advisory panel (subsequently referred to, in this report, as a collaboration/review group\(^2\)), as well as to the need to minimize the potential for adverse effects on the WGW population in the short-term, i.e. before such a group could be established or convened.


\(^2\) NOTE: there was no agreement at the workshop on what best to call this group. It was left to a task team to consider this along with the potential scope of such a group
The importance of involving other parties, notably the Russian Federation, SEIC’s contractors, and other oil and gas companies and their contractors, in planning decisions, implementation, monitoring and review was noted.

It was recognized that the potential effects of Sakhalin oil and gas development are not the only challenges to this population’s survival. Other threats exist over the range of the WGW. (For instance, a young female WGW had been caught in a fishing net and drowned as a result in Tokyo Bay on May 10th.) In relation to such range-wide threats, the overarching need for a range-wide conservation strategy, involving all range states, was also discussed. Most participants viewed IUCN as the organization to initiate and broker such a strategy. Although the recovery of the WGW will require mitigation of risk factors throughout its range, the meeting focused primarily on the factors pertaining to Phase 2 development of Sakhalin II.

Many participants were convinced that continued oil and gas development would increase the risks to WGWs. Some considered that the most precautionary approach would be to suspend the Sakhalin II project, or components of it, until additional information for adequately designing the required mitigation measures is available and until such measures are rigorously tested and implemented. The results from such testing would contribute to a better assessment and implementation of the Projects’ overall mitigation plans for WGW protection, in the event of the project going ahead.

The current approach taken by SEIC towards the involvement of other stakeholders was commended by participants and regarded as having the potential to be ground-breaking in terms of best practice.

Meetings such as the current Workshop, involving diverse stakeholders would seldom meet everyone’s expectations, but this Workshop illustrated that constructive engagement can lead to a range of important observations and generate ideas which lay the foundation for the future. The ideas resulting from the Workshop for adaptive management/ continuous improvement, mechanisms for long-term oversight, arrangements for addressing cumulative impacts of various developments in the Project area, pursuing conservation efforts across the full range of WGW, and inclusive and transparent dialogue between stakeholders represent a major contribution towards creating the much-needed capacity and commitment to securing the survival and recovery of WGW over the longer term.
1. INTRODUCTION

1.1 Background
In August 2004, at the request of Sakhalin Energy Investment Company (SEIC), and its potential lenders (Lenders), IUCN—the World Conservation Union (IUCN) constituted an Independent Scientific Review Panel (ISRP) to evaluate the potential effects of Sakhalin II Phase 2 oil and gas development (the Project) on the critically endangered western gray whale (WGW) population and related biodiversity. The ISRP’s Report was completed and became publicly available on February 16, 2005. That report identified a number of threats to WGWs posed by oil and gas exploitation activities. On May 11-12 2005, at the request of SEIC and the Lenders, IUCN convened a workshop at Gland, Switzerland to consider those threats and SEIC’s plans to mitigate them, and to inform decision-making by SEIC and the potential lenders (Lenders) regarding the Project.

1.2 Context
The executive summary of the ISRP Report describes the need for protection of WGWs in the context of oil and gas development as follows: “The small population of WGWs, numbering only about 100 animals, is on the edge of survival. It was reduced to such low numbers by commercial whaling that in the mid 20th century it was thought to be extinct. The population is listed by IUCN, as critically endangered. The few surviving animals (possibly including only 23 reproductively active females), face a number of hazards throughout their range. The only known forage grounds for the animals lie along the north east coast of Sakhalin Island, where existing and planned large-scale offshore oil and gas operations pose threats to the population. These include the possibility of direct kills from collision as well as reduced reproductive success and survival through the degradation of this critical habitat as a result of physical disturbance, oil contamination of the WGWs and their prey and the introduction of loud noise.”

Two of the many oil and gas concessions around the island, including one operated by SEIC and another operated by Exxon Neftegaz Ltd, lie close to the WGW’s near-shore and offshore feeding areas. These are the only known feeding areas for the WGW population. In spite of the risks posed to WGWs, the exploitation of oil and gas reserves in this region is considered economically important to Russia and Sakhalin. The total volume of gas contractually committed from the Sakhalin II Project alone is now up to 6.5 million tonnes per annum for periods of 20 years or more – 70% of capacity, including Russia’s first-ever supplies of gas to Mexico and South Korea.

The Sakhalin II development represents the largest foreign direct investment project underway in Russia. It was the first Production Sharing Agreement (PSA) to be signed in Russia and the first PSA to go into operation.

Phase 1 of Sakhalin II has been producing oil from the Vityaz complex offshore Sakhalin since July 1999. The Vityaz complex consists of the Molikpaq production platform (a single anchor leg mooring buoy and the Okha floating storage and offloading unit), and is located on the Astokh feature of the Piltun-Astokh (PA) reservoir offshore Sakhalin. Production under Phase 1 is currently limited to the ice-free period during the summer months. Production under Phase 2

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would be year-round and entail further development of the PA field (i.e. addition of the PA-B platform), development of the Lunskoye field farther south (i.e. addition of the Lun-A Platform), construction of oil and gas pipelines from the platform to shore, an onshore processing facility in the north of the island, two 800km long pipelines to transport the oil and gas to an oil export terminal and LNG plant at Prigorodnoye on the southern end of Sakhalin Island.

The ISRP Report provides a detailed consideration of the risks, the options for mitigation and the need for monitoring, if and as, oil and gas development proceeds under Sakhalin II Phase 2.4

1.3 The Workshop Objectives

The overall purpose of the workshop was to inform decision making by SEIC and the Lenders, as related to the Project and the conservation of the WGW population. The specific objectives were to: (i) provide SEIC with feedback on its response to the ISRP report; and (ii) contribute to the Lenders’ understanding of SEIC’s response to the ISRP Report, including, inter alia, revised plans for addressing potential threats to WGWs from the Project, and of the extent to which the SEIC response does or does not address the key findings of the ISRP Report. For details see the Workshop Terms of Reference (Annex 1).

2. PROCESS AND CONTENT

Following opening remarks by the Chair and a welcoming address by the Director General of IUCN, the draft agenda (Annex 2) was discussed. Various opinions emerged as to whether to remain in plenary throughout or break into smaller working groups on specific issues. It was eventually decided to remain in plenary, so all participants could have an input to all issues.

Introductory presentations were made by SEIC and the ex-ISRP Chair. This was followed by presentations from SEIC team members, updating other participants on SEIC’s approach and action taken to address a number of key issues raised in the ISRP report:

- collisions/ship strikes;
- noise;
- oil exposure;
- physical disturbance; and
- PA-B platform location and subsurface preparation.

Four wider issues were also raised, the first three of which had also been raised in the ISRP Report:

- the long-term need for an independent oversight or advisory body, and also wider public participation (e.g. a “citizens’ advisory council”), which may or may not be connected;
- concern about cumulative effects (e.g. combined effects of a number of different potentially impacting activities – both oil-related and others, such as fishing and other oil industry activities, occurring simultaneously, or in close succession);

4 For the full background and the range of issues see the ISRP report of February 2005 available at www.iucn.org/business. Further information and reports are available on Sakhalin Energy’s website at www.sakhalinenergy.ru.
the benefits of international dialogue to facilitate conservation of the WGW population across its full range; and,
the need for review and, where needed, suitable adjustment to summer 2005 mitigation measures planned by SEIC.

Participants agreed to address the wider issues raised by the scientists before the specific, technical issues, and to focus on establishing a longer-term framework to ensure effective follow-up. It was recognized that some of the technical questions required detailed work involving additional input from other specialists, and tightly focused, small-group discussions than would be possible at the workshop.

All the presentations and papers (Annexes 4 and 5), except one confidential report from SEIC, were placed on the IUCN web site www.iucn.org/business and made available on CD.

3. MAIN DISCUSSION, OBSERVATIONS, AND SUGGESTIONS

Some participants reminded the Workshop that one of the ISRP’s conclusions was that “the most precautionary approach would be to suspend the present operations and delay development of the oil and gas reserves in the vicinity of the WGW feeding grounds off Sakhalin, and especially the critical nearshore feeding ground that is used preferentially by mothers and calves. This would allow much-needed refinement of risk assessment and further development of appropriate, independent mechanisms for monitoring and verification of mitigation practices.” Therefore, as indicated in the terms of reference (Annex 1), the suggestions resulting from the workshop do not imply the endorsement or rejection of the Project or of the related plans of SEIC. These suggestions are aimed at securing the best outcomes for the conservation and recovery of WGW. To this end, a number of ongoing research programmes was mentioned (annex 6).

3.1 General Observations on the SEIC response to the ISRP Report
Workshop participants recognized that the WGW population faces significant threats from ongoing activity and proposed developments around Sakhalin Island as well from a variety of factors throughout the population’s range. Participants acknowledged that SEIC has put in place significant mitigating measures to protect the WGW population from many of the potential effects of the Sakhalin II Phase 2 Project. They also recognized, however, that the adequacy of those measures could not be assessed or assumed based on existing information which is lacking in some important aspects. Therefore, a number of issues remained to be addressed more fully in the SEIC response.

Participants called for more dialogue between all parties to address the risks to WGW associated with the Project, other developments in the Sakhalin area, and other factors throughout the population’s range, to maximize the WGW population’s chances of recovery. This would include, inter alia, continued co-operation between SEIC, scientists, conservationists and the Russian Federation for much needed further research and analysis, and for independent scientific assessment of the adequacy of proposed protection measures. Some participants considered that a precautionary decision would be to postpone certain planned events (e.g. PA-B platform installation) until the best possible mitigation measures are in place. Others believed it desirable to completely forgo further oil and gas development at this site. A more common view was that, if oil
and gas development is unavoidable, then a strong precautionary approach should be taken to eliminate or minimize risks, by applying the best possible measures.

Commending SEIC’s courage and initiative for undertaking scientific assessments and stakeholder consultations as it has, the participants noted that SEIC had gone further than other companies operating in the region in its efforts to minimize impacts on the WGW population (e.g. re-routing of pipelines) and to understand and address its conservation requirements. They also recognized that withdrawal of SEIC from current and proposed operations would not necessarily mean the end of oil and gas development activity in the region. The space created may be filled by other companies who may or may not be more sensitive to the WGW conservation issues.

The participants also noted that project implementation schedules (time constraints), Production Sharing Agreement requirements, data ownership, and release procedures constrained effective and timely information flow. In particular, the “turn-around” time for data/information was noted to have constrained peer review (to ensure scientific rigour), and adversely impacted confidence levels in working with SEIC and others. It was suggested that a sustained and independent peer review process would contribute to this much needed confidence-building. Various ideas were put forward about processes and mechanisms for the assessment and validation of mitigation measures and to increase knowledge of potential cause-and-effect relationships. Given the gaps, an adaptive management/continuous improvement approach was proposed which could respond to new information as and when it arose.

A major concern expressed by many participants was whether or not the measures already laid out in the WGW protection plan and other documents were feasible, would be consistently applied, and so be effective. It was argued that this requires a rigorous and independent oversight/review function, for example, to help assess and validate mitigation measures; to increase knowledge of cause and effects; and to implement an adaptive management (continuous improvement) approach. Some proposals on actions and procedures for the purpose were made, but it was recognized that a lot more discussion was needed.

3.2 The main outcomes
The main outcomes from the general discussion were:

- a proposed action to establish a collaborative/review body, to be in operation by the end of 2005. This would provide scientific and technical advice on the conservation of WGWs to inform decision making, and, in particular, to address the issue of cumulative effects (3.3.1 and 3.3.2 below);
- a suggestion that IUCN initiate action to establish a range-wide recovery plan for the WGW population (3.3.3 below);
- a suggestion to develop a strategy to address immediate mitigation concerns for the summer 2005 construction period, including in particular, convening of an acoustics specialist group to review the latest information on noise impacts and predictive modeling and to improve confidence in essential mitigation measures, action criteria and on-site decision/response procedures (3.3.5 below);
identification of remaining issues relating to: cumulative effects, collision/ship strike, noise, oil exposure, physical disturbance, PA-B platform location and installation, summer 2005 actions, and wider issues (3.3.1 to 3.3.10 below)

3.3. Issues, Concerns and Suggestions
The issues, concerns and suggestions arising from discussions about individual key potential sources of impact as well as of the overarching issues are summarized below.

3.3.1 Collaboration and Review
Many participants underlined the need for independent review, verification and monitoring, which they saw as necessary to build trust and confidence as well as to harness a wider range of expertise. Concern was expressed over the implications of decisions which may be taken without adequate technical and scientific information. Difficulties in defining what was adequate and possible were also acknowledged.

To address these concerns, a collaboration/review group was proposed with a function, structure and modus operandi to be developed by a small drafting task team identified at the Workshop. Steps, responsibilities and timelines were proposed, and an initial work scope was indicated for the task team (annex 7). It was anticipated that an outline of the TOR for the collaboration/review group would be agreed by the Workshop participants by July 5th.

Participants recognized that “collaboration” and “independent review” were mutually exclusive mandates, and that this issue would need to be properly considered by the task team in defining a scope for the collaboration/review group.

3.3.2 Cumulative Effects
These were defined as the WGWs’ exposure to multiple risk factors, which might have simultaneous or combined effects over the short or long term. Individual minor effects may sum to be significant.

Participants agreed there was a need to consider the full range of human activities in the Sakhalin region, including those of other oil and gas companies, other industry sectors and other sources. Particular concerns were expressed regarding the potential contributions to cumulative impacts of Exxon’s activities under Sakhalin I and possible impact from disturbance by fisheries activities.

Participants recognized that cumulative effects can only be assessed by careful monitoring of the population. Analyzing and characterizing such effects is complex and precautionary action may be essential when exact cause-and-effect relationships can not be determined. A more extensive consideration of cumulative effects would be a task for the collaboration/review group (as in 3.3.1 above).

3.3.3 Overarching Issue – Conservation Across the Full WGW Range
Participants felt that a comprehensive programme seeking to minimize the impact of risk factors throughout the WGW population’s range is necessary to maximize the population’s chances of recovery from the current low level. A number of options were discussed and many participants

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5 Note, the potential impact of fisheries activities was not an issues addressed by the ISRP Report.
viewed IUCN as the organisation best-placed to explore and take this proposal forward. (subject to internal IUCN approval). In the meantime, it was noted that individual actions would need to be taken, at sensitive points within the WGW population’s range, such as NE Sakhalin, based on incremental learning.

3.3.4. Collision/Ship strike.

It was noted that to date no estimation of the probability of collisions had been attempted, nor had any analysis been provided of the extent to which the mitigation procedures in place and planned would be expected to reduce the risk. It was suggested that although the collision risk due to Sakhalin II activities may not necessarily be very high, the extent to which the mitigation measures are expected to reduce it might turn out to be fairly marginal when quantified. Factors limiting the effectiveness of Marine Mammal Observers (MMOs) were identified as including operations at night or in poor visibility, such that whales encountered will not always be detected. It was noted that the adverse impact of collisions on the WGW population would be higher if females were involved. The ISRP Report considered that “the loss of one additional female per year (over and above the death rates experienced in recent years)” could be catastrophic for the population. Specific concerns regarding collision at night and mitigation measures for tanker traffic in the La Perouse Strait were not resolved. Sonar was suggested as a whale detection device although some participants had concerns because the effectiveness of such systems has not been demonstrated. Field studies have noted that these sonar systems add noise to the environment and that they could enhance the risk of strike by causing whales to swim near but not at the surface.

The ensuing discussion concluded that:

(a) quantification of the risks would be helpful and analysis would benefit from more information on vessel numbers and collision susceptibility observations from other whale population studies;

(b) the value of proposed mitigation measures might be assessed by modeling the probability of a strike with, and without, those measures;

(c) other companies could be encouraged, by SEIC and others, to apply key mitigation and enforcement measures suggested by SEIC and considered to be useful (e.g. vessel routing and speed limits) as well as those which may be explored and determined useful in future;

(d) Where MMOs might be important for effective implementation of the mitigation measures, the experience of these MMOs would be a key factor in maximizing the probability of reducing ship/whale collision

(e) provision of information on the results of the MMO programme to date, including sightings, distances and resulting changes in vessel operation, would help scientists in assessing the effectiveness of an MMO programme as a mitigation measure; and

(f) mitigation measures need to follow best practices in vessels’ avoidance of whales guided, for example, by information on past sightings and vessel traffic

SEIC expressed its willingness to undertake (semi-)quantitative collision risk assessment and to make the resulting additional information publicly available.
3.3.5 Noise

The greatest immediate, short-term concern for many participants was the potential impact of increased noise levels from work associated with platform and pipeline construction. Some considered that the proposed mitigation measures were not adequate and should include a process for immediate response, in the field, to a potential risk situation. SEIC described a new strategy for mitigating the effects of noise levels based on a 4-hour mean received level of 140 dB as its indicator of when, and whether, an action should be stopped. SEIC considered this new approach to be consistent with published literature on whale response to noise. The ex ISRP members all disagreed and considered that the application of the new strategy during the construction phase near Piltun would be dangerous for the WGW. In particular, the proposal to increase the threshold of dangerous noise, the “stop-work” level, by 20dB (i.e. by 100 times, given that this is a logarithmic scale), above the 120dB level recommended by ISRP and, to impose a 4 hour period for computing mean noise level. Based on the latter, it appeared that work would not be stopped on reaching potentially dangerous levels, because the average noise level over a 4 hour period was unlikely to exceed 140dB.

In summary, particular concerns raised were:

(a) available knowledge, information and data are not sufficient to assess the adequacy of proposed mitigation measures, for instance, behavioural response and behavioural indicators of impact were not well understood by anyone.

(b) there is no clear process to ensure timely response in the field, to a potential risk situation as soon as it is observed;

(c) that SEIC have designed all construction operations to operate with an expected upper limit of noise at the edge of the whale feeding ground, and are proposing to set a 140dB “action level” during actual construction. (Many of the former ISRP members expressed surprise at this and clearly had assumed the action level would be 120dB.)

(d) noise during scour-protection installation for PA-B this year. Some present asked whether this could be delayed from October to outside of the peak season (e.g. November). (see also Section 3.3.8);

(e) vessel noise limits may be set too high, and, excessive noise could cause disturbance to WGWs unless the vessels were routed so as to avoid such disturbance;

(f) In general, little is known about WGW communication, or their use of passive listening to environmental cues on the feeding grounds. Without this knowledge, it is impossible to judge the full impact of industrial noise on WGWs.

Based on concerns regarding the SEIC strategy and plans and other potential noise related effects, it was suggested that, in the current absence of a collaboration/review group, an *ad hoc* expert group could be established immediately to review and analyze, in advance of the summer 2005 work season, the planned activities, the acoustic data, and the mitigation and monitoring measures proposed for this work. SEIC would convene such a group and would invite the SEIC noise specialist consultant, the acousticians from the former ISRP and other acoustic scientists to participate therein. To be effective, this group would have to come together quickly, and work within a clear timeline.
It was also proposed that SEIC and other groups of researchers co-ordinate their planned acoustic monitoring programmes in the Piltun area, such that real-time acoustic monitoring data is available as a basis for prompt and diligent “shut-down” decision-making. Measurements from Lunskoye, for construction ships, could be used for further refinement of the results of noise level modeling for Piltun area. It was considered desirable that the Russian Federation representative participate in the decision-making process during real-time monitoring at the construction stage.

In addition, it was noted by at least one participant that WGWs received noise levels are only one element of noise concerns (i.e., the independent variable), and that the underlying intent is to avoid adverse impact on the whales (i.e., the dependent variable) which may occur even if noise levels are below some estimated threshold of tolerance.

3.3.6 Oil Exposure

Much of the brief discussion on this topic focused on the importance of avoiding any adverse impact on the WGW feeding grounds. As discussed in the ISRP Report, Piltun Lagoon may be ecologically linked to the near-shore feeding ground and therefore the risks to this lagoon are viewed as a major concern. Oil spill prevention was considered by participants to be the highest priority, ahead of oil spill response. The effects of chronic exposure of WGWs to low levels of pollution from small leaks and spills were also a concern, although the decision to move the proposed route for the pipeline 20 km further south are seen to have reduced this risk to the feeding ground. The participants had not had an opportunity to study the full range of measures proposed but felt that SEIC responses and explanations were encouraging.

It was suggested that any remaining concerns might be addressed by:

(a) further work to clarify, quantify and mitigate risks;
(b) availability to the participants of information on the full range of prevention and response measures; and,
(c) detailing procedures to ensure effective implementation of necessary measures noted in oil spill prevention and response measures;
(d) detailed analysis and mitigation of risk of spills from tankers in transit from the new Prigorodnoye Oil and Gas Export Terminal.

Lack of time at the Workshop prevented identification of all important risks related to oil and gas spills, and the adequacy of other proposed preventative or response measures. These included, for example, hazards posed by extraction of natural gas; spill response in winter when the surrounding seas are ice-covered; the implementation and efficacy of oil spill response in remote areas; the need for local, regional, national and international coordination in response to spills; the lack of analysis of spill records for oil companies and contractors involved; the need for long-term monitoring of habitat quality and degradation; the high dependence of the oil companies on contractors; and the uncertainty that such contractors would comply with oil spill prevention and response measures as required. Although SEIC had presented their position on these issues, many participants felt more discussion was needed on many of these issues several of which remained to be resolved. SEIC offered to consider documenting an overview of all components of their proposed oil spill prevention and response strategy, from design through to procedures, and to make this available to workshop participants, so that its completeness could be fully assessed.
The SEIC strategy included both up-front measures for oil spill prevention, and arrangements for oil spill response (i.e. actions to be taken when a spill has occurred). A potential gap in the strategy that was noted was the need for plans for rapid response in cases where a dangerous situation for WGWs has developed (such as a tanker run adrift) but oil is not yet in the water. It was emphasized that once oil is in the water, the proportion that can be recovered tends to be small.

In addition, a number of participants noted that tanker spills represented a major potential threat, in particular, spills from tankers departing from the planned Prigorodnoye OGET terminal during the autumn and spring WGW migrations. The fact that SEIC’s risk evaluation and mitigation plan had not considered tanker spill risks was seen as a major deficiency. SEIC noted that risks could be considerably less than at the current terminal (VMT) and that SEIC would have a strict vetting process for tankers using the terminal, including, as now, the requirement for double hulls. One suggestion was that the VMT not be re-opened, and that production at the Molikpaq be discontinued until the new Phase 2 facilities are available.

3.3.7. Physical Disturbance
The primary concern of many participants was the potential degradation of WGW feeding habitat. Although the selection by SEIC of a pipeline routing option away from the Piltun feeding grounds reduced concerns related to dredging and pipe laying activities, it did not eliminate those concerns entirely. Participants expressed concern that there was still a risk that the sediment plume from dredging would reach the near-shore feeding ground and thus affect the benthic communities on which WGWs depend. Based on their sedimentation model, SEIC offered assurance that dredging effects would only be local and that the plume would not reach the feeding ground. The ISRP had not seen this model. SEIC offered to make the relevant information available. Additionally, it was noted that precautions could include suspending dredging operations if currents were observed to be taking dredge-drift towards the feeding ground.

It was proposed to address these concerns by real-time monitoring of the dredging plume to see whether it extends beyond the predicted local area. A need for a long-term monitoring programme to assess any long-term changes to habitat was also expressed.

3.3.8 PA-B Platform Location and Installation
Concerns were expressed regarding disturbance from installation of the PA-B platform planned for summer 2005, and subsequent operational noise, potential vessel strikes and oil spills. These concerns were related, in part, to the platform’s planned location some 7 km east of the near-shore feeding ground. The Lenders confirmed that an independent evaluation had concurred with the information presented by SEIC to the workshop concerning platform siting. Possible locations for the platform were constrained by safety considerations, the nature of the oil and gas field, and the technical specifications of the platform.

Based on a presentation given by SEIC at the workshop, which provided a more detailed description of site selection processes and reservoir characteristics than previously available to the ISRP, most participants felt that siting the platform at another location where the oil and gas could still be extracted was unlikely to make any significant difference in the potential impacts. Other locations could, possibly, increase the risk of a spill due to shallow gas hazards, inadequate
sediment base, increased drilling distances, or increased number of platforms required. However, 
there was a view that a clear description of these factors still needed to be made available so that 
stakeholders could assess, for themselves, the justification for the planned PA-B platform 
location. Some felt that further independent technical review of the potential for an alternative 
location for the platform, to minimize WGW impact, would enhance confidence in the decision. 

Many participants accepted the proposed location of the platform after explanation although some 
would prefer no installation at that site, or at least to see it delayed until after the Lunskoye 
installation, to allow time for an independent analysis of the other options and relative risks to the 
whales. A further suggestion was to start extraction from a location farther away from the Piltun 
feeding ground and move operations closer only if, and when the sensitivities of the WGWs and 
the effectiveness of mitigation measures are better-understood (although this could involve 
construction of a third platform for the P-A field, which would, potentially, bring its own new set 
of problems). It was suggested that the proposal to delay the PA-B installation would not interfere 
with immediate development of the Lunskoye field.

Given the proximity of the planned PA-B site, the potential exposure of the Piltun feeding ground 
and lagoon to oil was also raised as a long-term risk. Vessel strikes, given the proximity of 
operations, were also raised as a risk. More information from SEIC was requested on the level of 
risk to these areas implied by the currently selected platform site.

3.3.9. Summer 2005 Activities
A key issue raised related to timing of construction activities and the need to avoid periods when 
whales may be most sensitive to disturbance due to noise, vessel traffic, or other factors related to 
construction. The July-September period is when calf-weaning occurs, suggesting that it is a 
particularly sensitive period for the mother-calf component of the gray whale population. The 
timing of construction work appeared at the moment to coincide with this sensitive time for 
WGWs. The other key issue was the noise mitigation strategy itself – the 140dB issue.

SEIC argued that there is a tradeoff between duration and intensity of noise. They had scheduled 
construction operations at Lunskoye and Piltun consecutively, rather than concurrently, to 
minimize noise levels at any given time. They stated that this strategy could be revised.

It was proposed that an expert noise group (as proposed in 3.3.5 above) could review noise 
mitigation measures and offer advice on issues of scheduling and noise levels. SEIC also proposed 
to circulate their revised mitigation measures control document for further review and requested 
written comments/ feedback from the participants.

3.3.10 Wider issues
Concerns were expressed that, in view of its low numbers, the WGW population has limited or no 
tolerance for adverse effects from oil and gas development near its feeding ground. For that 
reason real-time monitoring (in particular, of noise fields and whale responses), criteria to 
evaluate the significance of the responses, and immediate decision making were deemed 
important to avoid unacceptable, adverse effects. Another concern was whether contractors would 
properly and fully implement the mitigation measures that SEIC has set forth as policy for its 
operations. The importance of timeliness of data availability for review was emphasized as was
the need for assuring that contractors implemented mitigation measures responsibly. Long-term as well as short-term issues needed to be addressed. Such issues could not be considered closed until they have been adequately addressed.

It was suggested that:
(a) the proposed collaboration/review group reviews these issues and makes recommendations;
(b) the environmental monitoring activities of the company already in place would need to be maintained, continued and strengthened wherever possible, notwithstanding the ongoing discussions;
(c) similarly, Lenders’ due-diligence processes, already in place, would need to be maintained if they proceed with their involvement in the Project;
(d) decisions could be made now based on best available information, but subject to future revision through an “adaptive management” approach.

Participants remained concerned that the industry “ALARP” acceptable risk standard (As Low as Reasonably Practicable), was not a high enough standard to be used in such a sensitive and important situation. Instead, it was proposed that risks should be thoroughly evaluated to an ALAP/BAT standard (As Low As Possible/Best Available Technology), that the company sets up ALAP/BAT standards for all its operations, and that contractors are required (rather than “requested”) to follow the company standards so established.

Recognizing that many potential impacts on the WGW population cannot be predicted with confidence in advance, participants underlined the need for continued monitoring of the population, and particularly monitoring of whether it is increasing or decreasing. The Russia-US programme has yielded results that could be directly used for determining population parameters and trends, through analyses such as those contained in the ISRP report. It was noted that SEIC had been conducting research on the WGW population, such as photo-id studies, and it was hoped that results from this work could also be used in the future for assessing the status of the population and for monitoring trends.

4 CONCLUSION

Workshop participants expressed appreciation for the process of engagement between SEIC and the scientific and conservation communities, viewing it as a potentially unique model and a strategically important initiative. As such, it was considered important to continue the process beyond the Workshop.

The Workshop had not intended to produce prescriptive conclusions, or recommendations. Neither had it wished to imply any endorsement or disapproval of any plans and decisions of SEIC or the potential Lenders. Many participants welcomed the way the Workshop had, as envisaged, facilitated an informed debate about the outstanding ISRP issues and the SEIC response to them. It gave participants the opportunity to discuss proposed mitigation plans, and, where necessary, how these might be improved upon. Although some expectations were clearly unmet, there was general agreement that the Workshop had contributed to developing a shared
understanding of the issues and challenges and generated a range of observations and ideas that laid the foundation for the future. The ideas for adaptive management/continuous improvement, mechanisms for longer-term collaboration and independent review, arrangements for addressing cumulative impacts of various developments in the Project area, pursuing conservation efforts across the full range of WGW, and the inclusive and transparent dialogue between stakeholders were seen by many as representing a major contribution towards creating the much needed capacity and commitment for securing the survival and recovery of WGW over the longer term.

Apart from the above, a number of process issues arose throughout the Workshop which underlined some important lessons relating to dialogues, in general, among industry, industry scientists and independent scientists. These included the importance of good design and robust processes and involvement of key stakeholders well in advance of important decisions in the life cycle of a project. Inclusive consultation process on research that affects stakeholders’ interests allows for more meaningful and mutually beneficial dialogue and potentially more insightful data analysis and interpretation. Presenting stakeholders with a fait accompli is unlikely to draw a positive response. Timely availability of information is critical for an informed dialogue.

The building of trust and public confidence was often seen to be determined by the nature and process of participation. Stakeholder confidence can be increased by their early involvement in design of processes and criteria for decision-making. A high level of transparency on monitoring, control and enforcement processes, including in relation to contractors’ and others’ related activities, is important for building stakeholder confidence. Open dialogue was recognized to provide the opportunity for sharing diverse perspectives, approaches and constraints (e.g. scheduling pressures of companies; importance of credible and adequate data for scientific assessments) and, to narrow gaps in understanding. Restrictions and lack of clarity on data ownership and lack of timely availability of information (e.g. for contractual or other reasons) was noted to breed suspicion and impede constructive dialogue.

POSTSCRIPT

IUCN wishes to emphasize the importance of looking beyond this workshop, which was only one more step in an ongoing dialogue. Difficult and pressing decisions lie ahead for all parties, and no single event or document should be considered definitive or final. Rather, both the workshop itself and this report of its proceedings are best seen as components of a process of “adaptive management” and “continuous improvement” towards the ultimate goal of conserving western gray whales. Therefore, whilst acknowledging that progress has been made, and that this Workshop provided a forum for frank exchanges on some of the major issues, a sustained dialogue that includes additional meetings, workshops and deliberations is required. Some of these activities may involve IUCN, but others may not. It is hoped that SEIC will find a satisfactory way to resolve the remaining issues, that the potential Lenders’ need for greater clarity with regard to SEIC’s responses to the ISRP findings can be met in a timely manner, and that a mechanism will be established for long-term oversight on issues involving Sakhalin oil and gas development and the conservation of western gray whales and related biodiversity. After having managed a fruitful Independent Scientific Review process for Sakhalin II Phase 2 over the past 9 months, followed by the dialogue at the Workshop, IUCN looks forward to helping stakeholders address the challenges which lie ahead, and remains committed to keeping the conservation of biodiversity in the foreground.
ANNEXES

1. Workshop Terms of Reference
2. Workshop Participants
3. Workshop Agenda
4. Background Presentations (available on the web and CD)
5. List of Documents Tabled
6. List of Related On-going Research Programmes
7. Draft Scope for Collaboration / Review Group
Annex 1  Workshop Terms of Reference

ISRP Follow-up Workshop
Annex 2. Workshop Participants

ISRP Follow-up Workshop

SEIC

Lisanne Aerts
Matt Bateson
Valeriy Fadeev
Stephen R. Johnson
Tatyana Konovalova
Andrew Pearce

Roberto Racca
Steve Rackley
Jamie Robinson
Pieter Swart
Jamie Walls
John Wardrop
Yuri Yakovlev

Potential Lenders

Jon Hancox, AEA Technology
Jeffrey Jeter, EBRD
Mark King, EBRD

Martin McKee, ECGD
Rick L. Williamson, EXIM

NGOs

John Frizell, Greenpeace
Sue Liebermann, WWF
International

Vassily Spiridonov, WWF Russia
Grigory Tsidulko, IFAW Russia

Scientists from the Independent Scientific Review Panel

Robert L. Brownell
Justin G. Cooke
Jim Darling
Greg Donovan
Tim Ragen

Randall R. Reeves
Richard Steiner
Glenn R. VanBlaricom
Alexander I. Vedenev

IUCN

Tom Hammond, Facilitator
Andrew Hurd
Jeff McNeely, Chair
Jean-Christophe Vié

Deric Quaile
Andrea Athanas
Jenny Heap – OSE Consulting
Annex 3. Workshop Agenda

ISRP Follow-up Workshop - 11-12 May 2005

NOTE – The following agenda was adapted throughout the workshop. The main changes were that the participants decided to remain in plenary throughout the workshop – so all were party to all discussions.

It was also decided to address wider issues first, namely:-
1. The question of independent oversight
2. The issue of cumulative effects

Wednesday 11 May 2005

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>08.50</td>
<td>Arrival of Participants</td>
</tr>
<tr>
<td>09.00-09.05</td>
<td>Opening remarks by the Chair – Jeff McNeely</td>
</tr>
<tr>
<td>09.05-09.15</td>
<td>Welcome Address – Achim Steiner</td>
</tr>
<tr>
<td>09.15-09.45</td>
<td>Overview of workshop format, agenda &amp; introduction of participants</td>
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<tr>
<td>09.45-10.30</td>
<td>Overview presentation Sakhalin II – A. Pearce (SEIC) and ISRP Chair – R. Reeves</td>
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<tr>
<td>10.30-10.45</td>
<td>Coffee Break</td>
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<tr>
<td>10.45-11.00</td>
<td>Presentation of key subject 1 – Collisions</td>
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<tr>
<td>10.45-11.00</td>
<td>Q&amp;A and Discussion</td>
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<tr>
<td>11.00-11.20</td>
<td>Presentation of key subject 2 - Acoustics</td>
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<tr>
<td>11.00-11.20</td>
<td>Q&amp;A and Discussion</td>
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<td>11.20-11.35</td>
<td>Presentation of key subject 3 – Oil Spills</td>
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<tr>
<td>11.35-11.55</td>
<td>Q&amp;A and Discussion</td>
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<tr>
<td>11.55-12.10</td>
<td>Presentation of key subject 3 – Oil Spills</td>
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<tr>
<td>12.10-12.30</td>
<td>Q&amp;A and Discussion</td>
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<td>12.30-13.30</td>
<td>Lunch</td>
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<tr>
<td>13.30-13.45</td>
<td>Presentation of key subject 4 - PA-B Platform Location/Subsurface</td>
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<td>13.45-14.05</td>
<td>Q&amp;A and Discussion</td>
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<tr>
<td>14.05-14.30</td>
<td>Presentation of key subject 5 – Physical disturbance/habitat</td>
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<td>14.30-15.15</td>
<td>Q&amp;A and Discussion</td>
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<td>15.15-15.30</td>
<td>Coffee Break</td>
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<tr>
<td>15.30-15.40</td>
<td>Organization of working groups – (Facilitator)</td>
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<td>15.40-17.45</td>
<td>Work in groups</td>
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<tr>
<td>17.45-18.00</td>
<td>Brief progress report to plenary</td>
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<td>18.00-19.30</td>
<td>Cocktail reception in foyer</td>
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### Thursday 12 May 2005

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<tr>
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<td>Arrival of Participants</td>
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<tr>
<td>08.50-10.30</td>
<td>Work in groups</td>
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<tr>
<td>10.30-10.45</td>
<td>Coffee Break</td>
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<tr>
<td>10.45-10.00</td>
<td>Work in groups</td>
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<tr>
<td>11.30-12.45</td>
<td>Inter-group briefings (15-20 min. each)</td>
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<tr>
<td>12.45-14.00</td>
<td>Lunch</td>
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<tr>
<td>14.00-15.45</td>
<td>Short reports back from working groups in plenary (15 mins.)</td>
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<tr>
<td>15.45-16.00</td>
<td>Clarification and discussion; next steps as required</td>
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<tr>
<td>16.00-16.30</td>
<td>Short report back on results from working groups (cont.); Clarification and discussion; next steps as required</td>
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<tr>
<td>16.30-16.50</td>
<td>Review of progress outstanding issues, agreement and next steps– (Facilitator);</td>
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<tr>
<td>16.50-17.00</td>
<td>Concluding remarks – Jeff McNeely (Chair)</td>
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<tr>
<td>17.00-17.10</td>
<td>Representative of the scientific community</td>
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<tr>
<td>17.10-17.20</td>
<td>Andy Pearce (SEIC)</td>
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<tr>
<td>17.20-17.30</td>
<td>Achim Steiner</td>
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Annex 4. Background Presentations

ISRP Follow-up Workshop - 11-12 May 2005

Background Presentation – SEIC
Background Presentation – Randy Reeves
Oil Spills Presentation – SEIC
Collisions Presentation – SEIC
Noise Presentation – SEIC
Platform Location Presentation – SEIC
Annex 5. Documents Submitted for Consideration by the Workshop

ISRP Follow-up Workshop - 11-12 May 2005

- SEIC Response to the Independent Scientific Review Panel Report
- Noise Mitigation Measures Relevant to Sakhalin II Construction and Operations (SEIC)
- 2005 Offshore Construction Noise Monitoring Plan (SEIC)
- Marine mammal Protection Plan (SEIC)
- Piltun-Astokhskoye B Platform Location Briefing paper (SEIC)
- Comments from Participants on Background Material
- IUCN Western Gray Whale Workshop Input (WWF)
Annex 6. List of Relevant On-going Research Programmes

ISRP Follow-up Workshop - 11-12 May 2005

1. Joint Industry Programme – Exxon; Neftegas Ltd (ENL); SEIC, funding International /Russian Programme
2. Joint Russia-USA Programme – Pacific Institute of Oceanography (Kamchatka Branch) and the Southwest Fisheries Science Center, La Jolla, California.
3. Joint Programme – IFAW acoustics and WWF behaviour study (Note: The correct title for this programme was not to hand at the time of posting the Workshop Report on the IUCN website – this will be amended as soon as possible).
Annex 7. Draft Scope for a Collaboration/ Review Group

NOTE comments were noted for an initial draft and a small group was identified at the workshop to develop this scope. The following steps and timelines were proposed:
(a) A sub group to flesh out the details – conference call 20th May (Greg Donovan; Tim Ragen; Sue Lieberman or Russian NGO; Jamie Walls; Jamie Robinson; Andrea Athanas; Deric Quaile.)
(b) A draft to be considered by workshop participants by May 27th
(c) Comments by participants to IUCN by June 30th- small group to sign off by 5th July

The scope should be drafted to include:-
Principles
Objectives
Modus operandi
Composition
Process for further work