



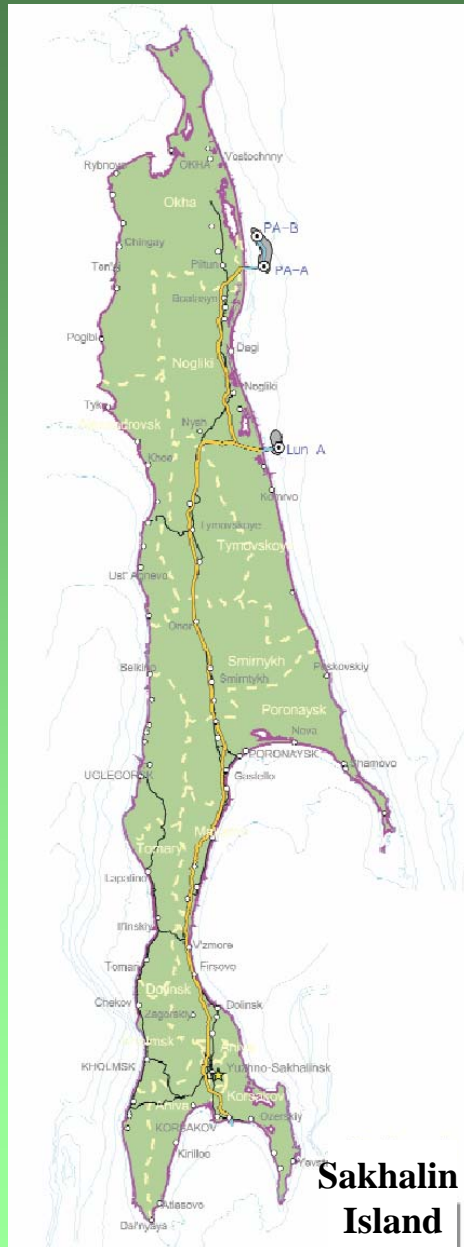
Shell's Sakhalin II project: upstream impact of LNG production



Dmitry Lisitsyn
Sakhalin Environment Watch

www.sakhalin.environment.ru

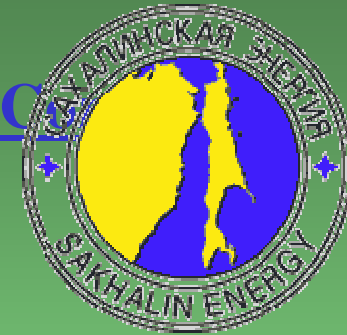
Sakhalin-2 project



Project's operator:

“Sakhalin Energy Investment Company Ltd.”

registered on Bermuda Islands



SEIC's shareholders:

Shell

55% - 27.5%

Mitsui

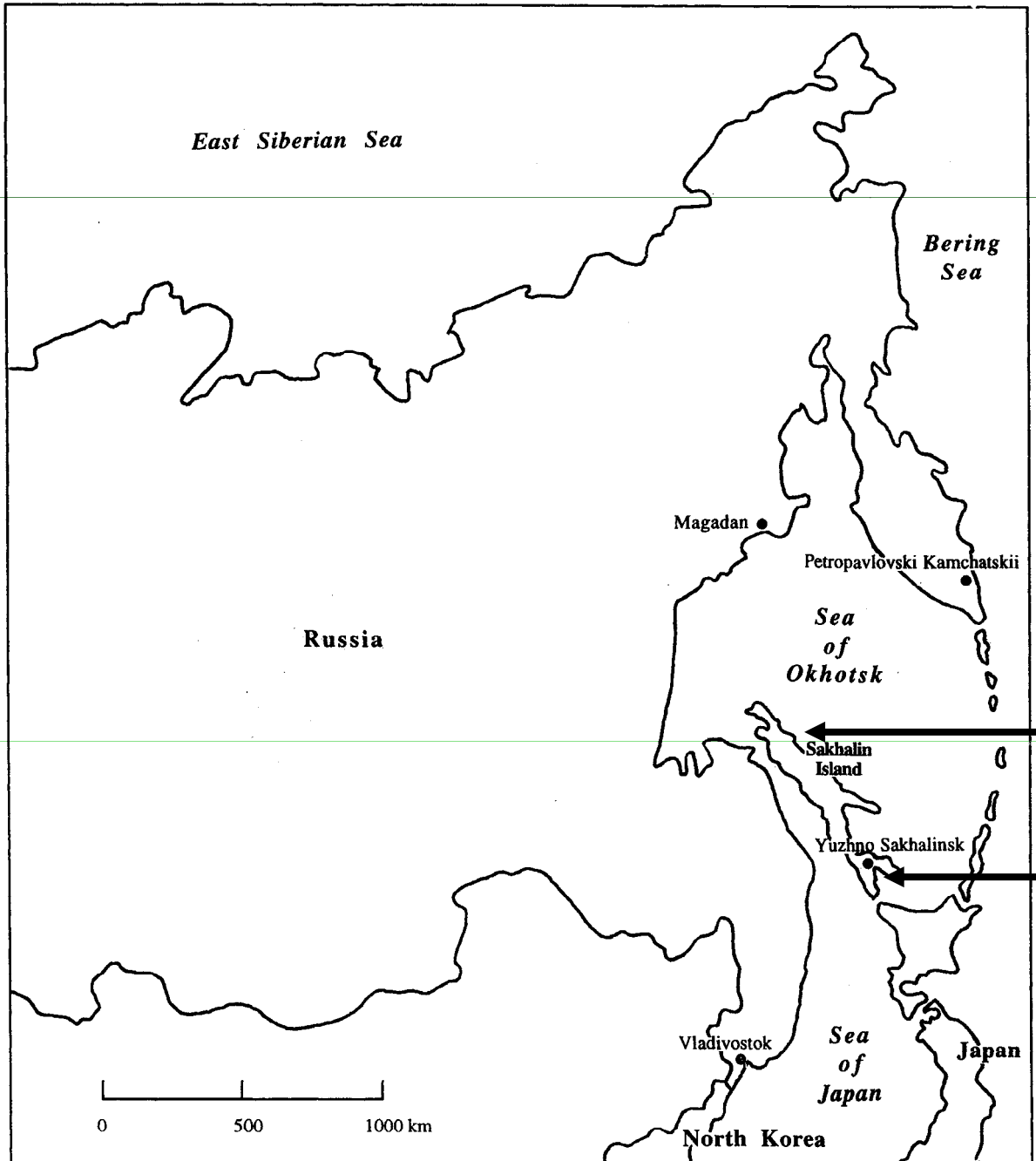
25% - 12.5%

Mitsubishi

20% - 10%

Gazprom

+ 50.0% + 1 share



Sakhalin II project

1.6 million metric tons
of LNG a year for
US West Coast through
Mexican Baja terminals

Contract between Bermuda's
SEIC (Shell, Mitsui, Mitsubishi)
and Singapore's Shell Eastern
Trading, Ltd

Sakhalin II oil and gas reserves

Sakhalin II LNG plant and
export terminal

09.06.2000



11.08.2002



First Sakhalin II off-shore production platform (Molikpaq):
8 years of gas flaring; 8 years of drilling waste dumping; numerous oil spills; gray whale habitat impacts; thousands of migratory birds killed

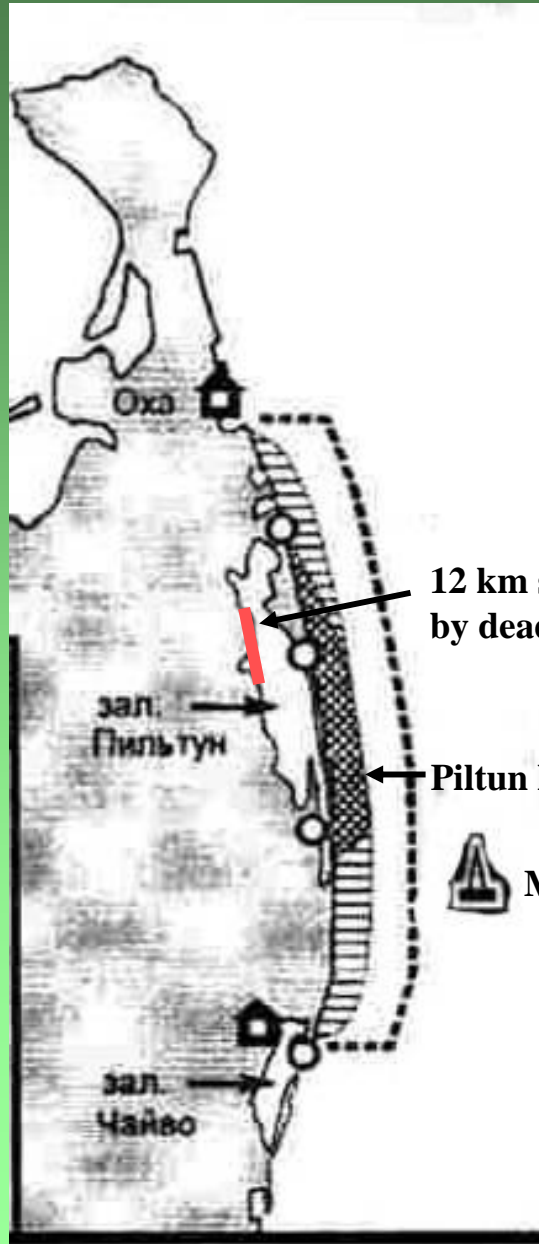
05.05.2003



21.06.2006



Massive Die-off of Pacific Herring



June 1999 -
6 months
after a beginning
of drilling

12 km shoreline covered
by dead fish

Piltun lagoon entrance

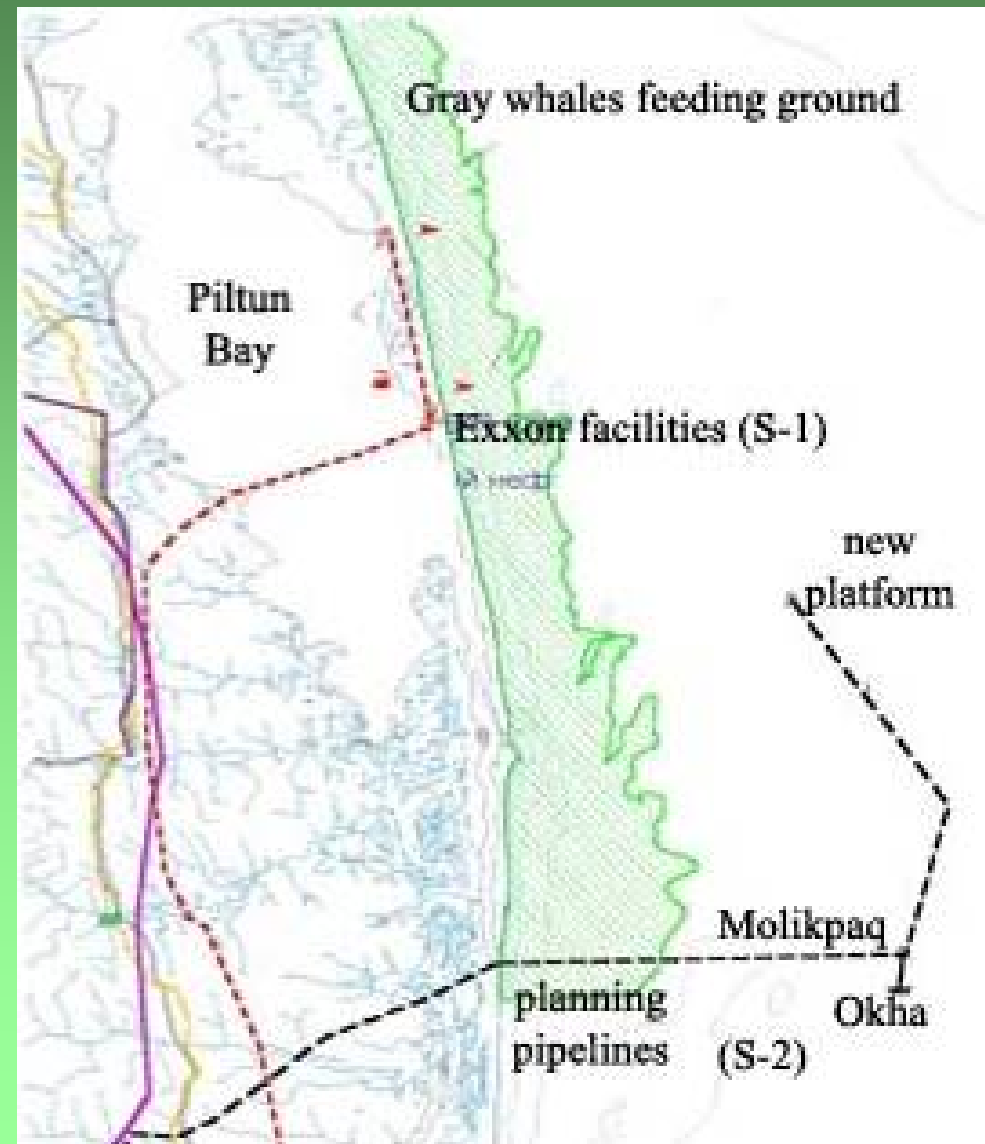
Molikpaq platform



Critically Endangered Western Gray Whale

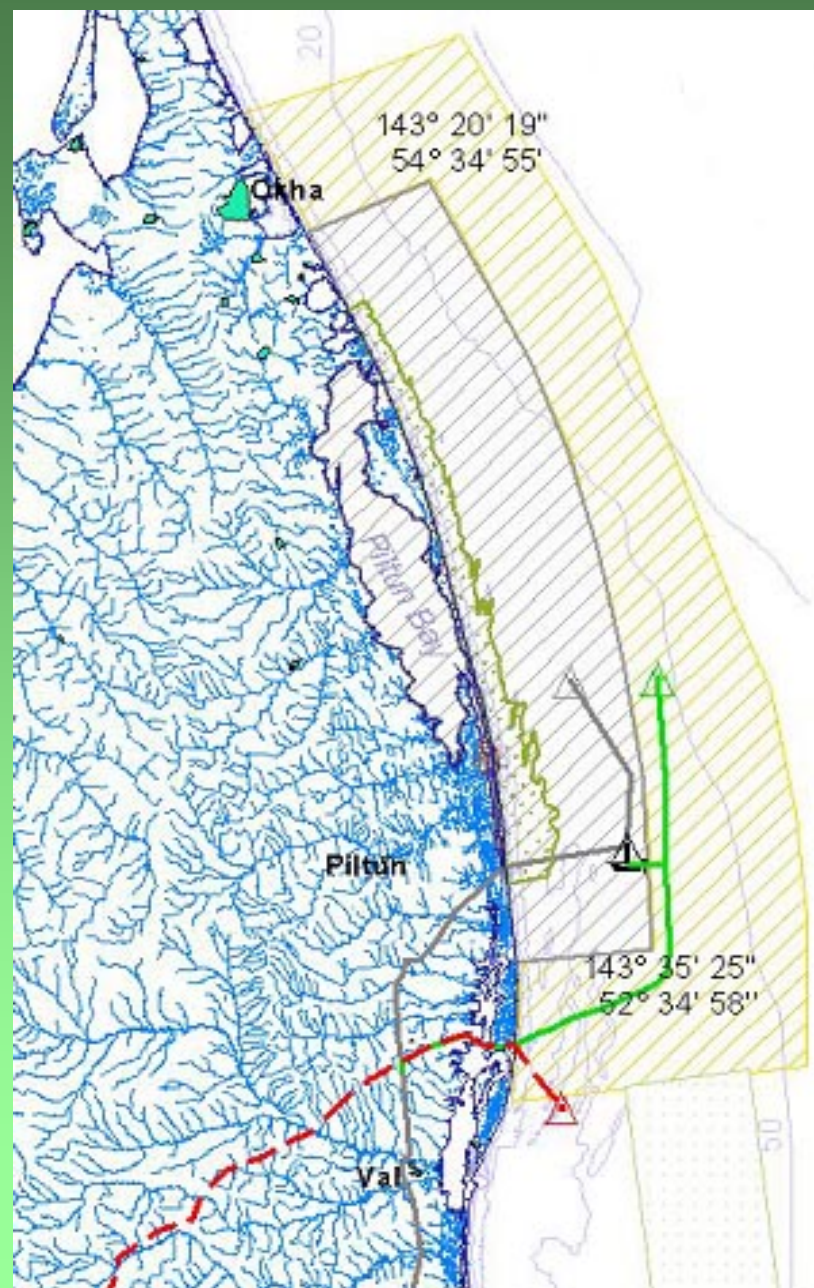
- About 100 Western Pacific Gray Whales remain, including only 23 reproducing females
- Off-shore oil platform and subsea pipelines adjacent to whale's only feeding habitat
- IUCN Western Gray Whale Advisory Panel concluded Sakhalin II threatens population with extinction

**Noise and pollution direct impact,
destruction of food resources**



NGO coalition had been demanding to re-route subsea pipelines and move away new PA-B platform since 2002

Just on 2005 April Shell agreed to change the subsea pipeline, but not the off-shore platform




IFIs involving in Shell Sakhalin-2 project

Negotiations about loans for phase II since 2001



Shell

 Mitsubishi Corporation

MITSUI & CO., LTD.



EBRD



US EXIM

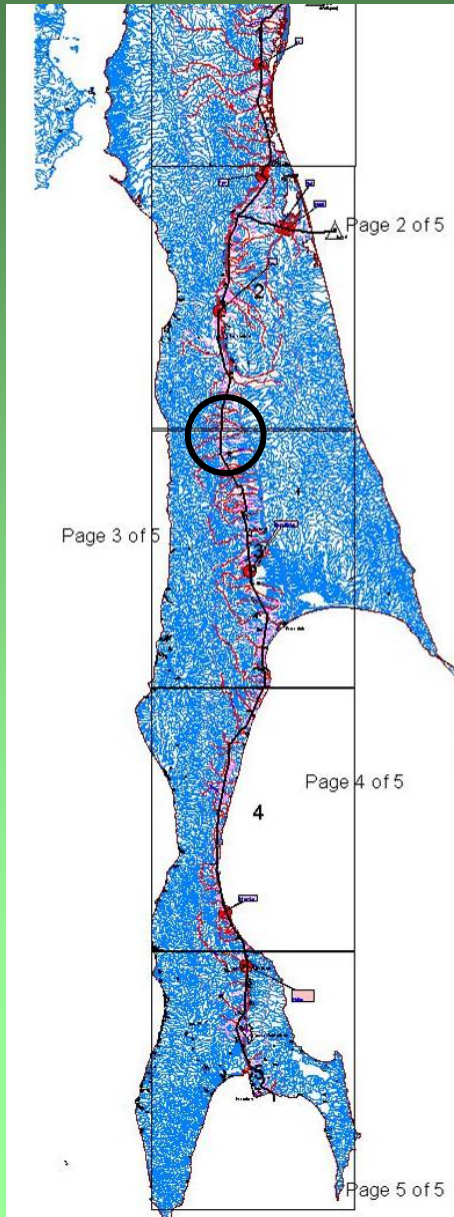


ECGD



JBIC

It's an upstream of wild salmon spawning river. Huge sediment's contamination.
Salmon avoids this kind of waters.



May, 2004

On-shore oil and gas pipelines construction

Active erosion processes



On-shore oil and gas pipelines construction

Forest destruction, mudflows and landslide hazards



El'nya river crossing, Smirnykh district, KP 228, March 22, 2006



1) Place of the river crossing



2) 100 m downstream



3) 1,800 m downstream. The content of suspended solids is still extremely high



4) Just 2,500 m downstream the water is getting cleaner

Chernaya river crossing (spread 2, category III)



Construction of dam on the river upstream to make convenient conditions for in-stream operations. Completely prohibited, worst practice. Excavators work out of Right-of-Way

Chernaya river crossing (spread 2, category III)



December 16, 2005

Water reservoir has appeared as a result of dam installation.

Chernaya river crossing (spread 2, category III)



Water disappeared in the river.

"Salmon eggs, buried in the gravel redd, rely on a steady flow of clean, cold water to deliver oxygen and remove waste products"
(Source: River crossing strategy, page 80).

Chernaya river crossing (spread 2, category III)



December 17, 2005

All looks great after words. The river channel full of water again.
Time to show the "well done work" to journalists, NGOs and lenders.
Who knows, that all salmon eggs are already died!

Preparing place for welding of the pipeline section – straight over the tributary of the Travyanaya river



A destroyed tributary channel

7 9 2005

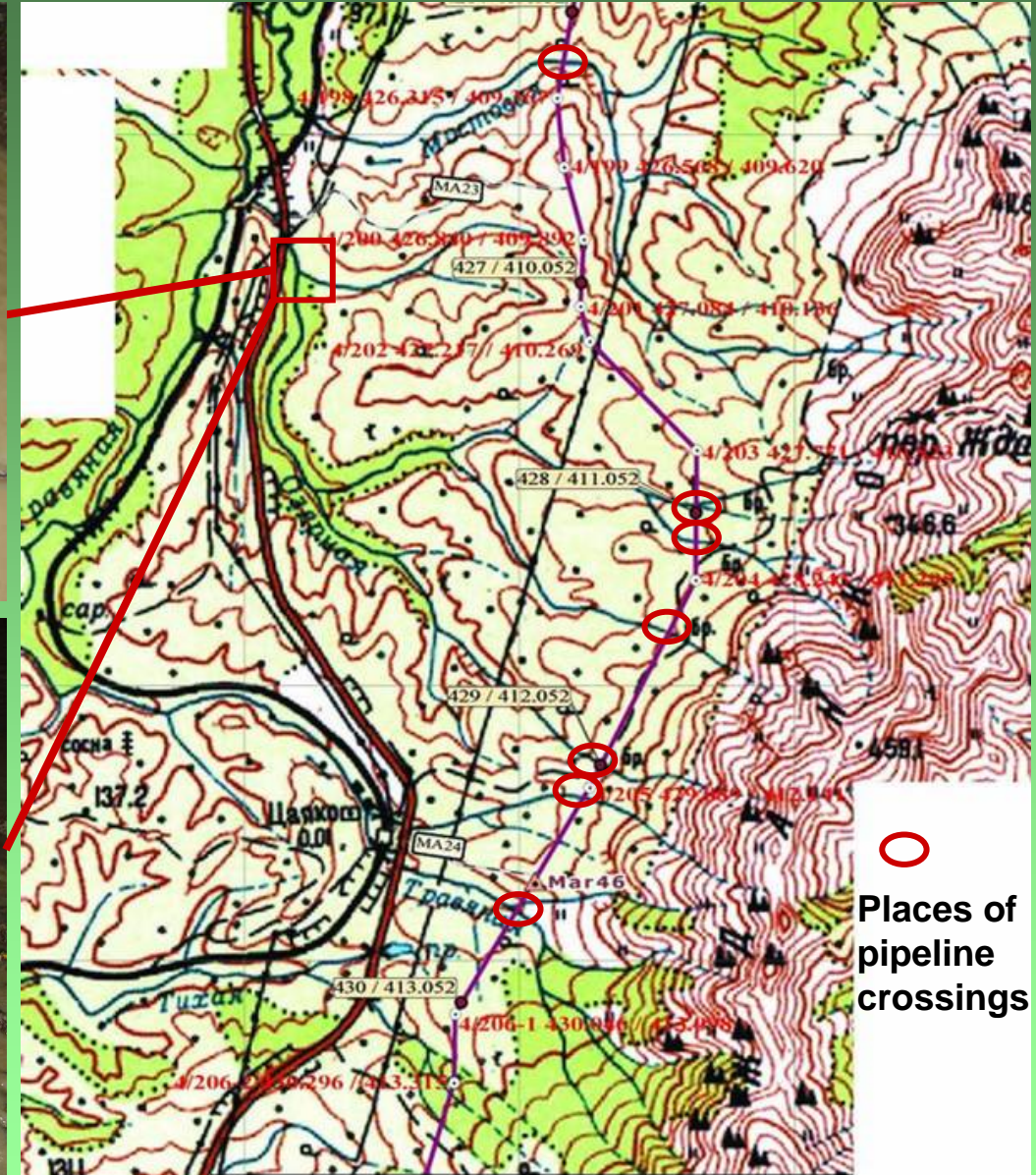
**Ozernaya river:
the river crossing by pipeline**

This deep trench was dug-up, just to provide convenient conditions for construction work

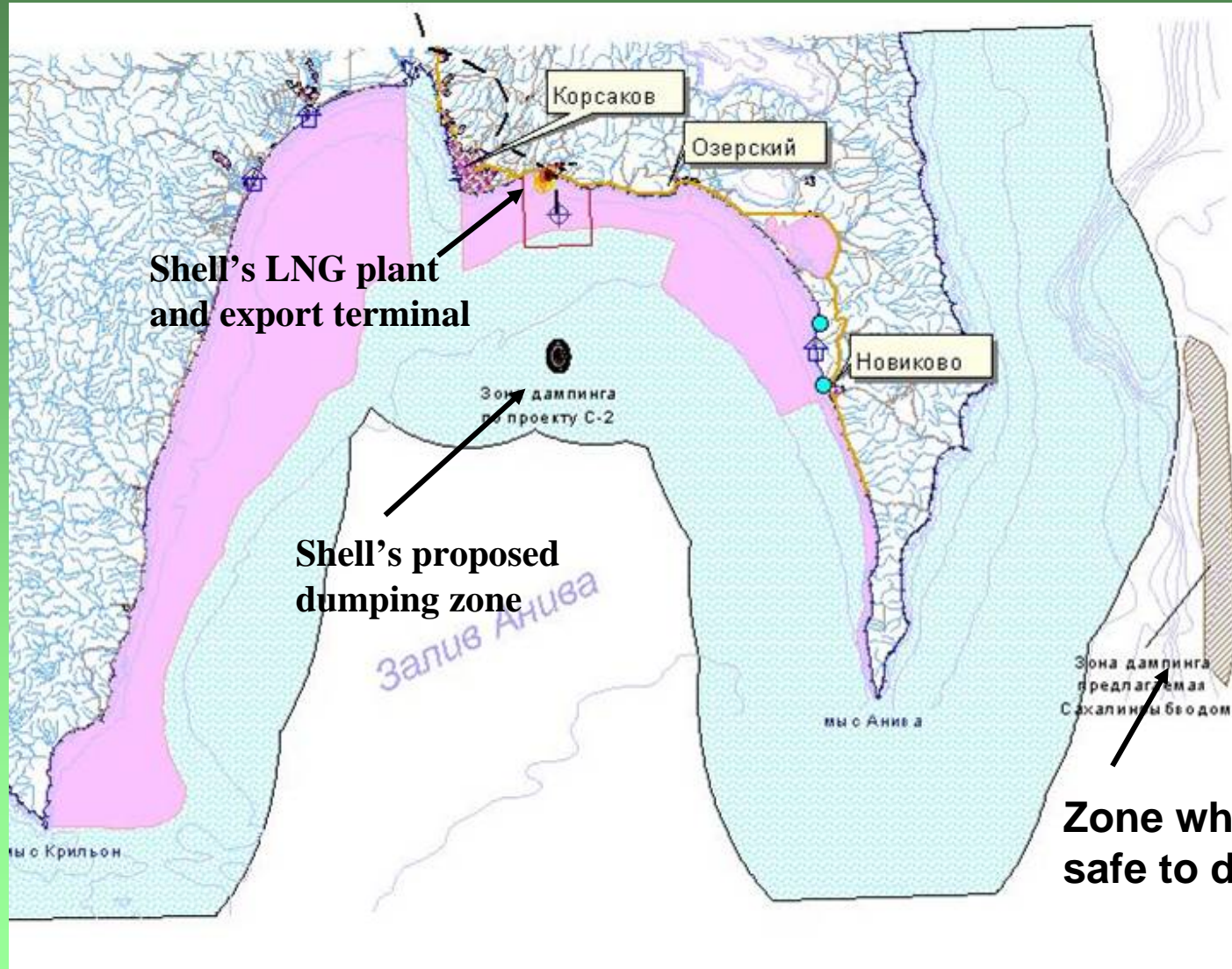
Vehicles move across the stream continuously



Ozernaya river: the result several km downstream of the river crossings



LNG plant and export terminal: dredging work and dumping of dredged materials into Aniva Bay



Zone where it would be safe to dump



Commercial coastal fishing

What does Aniva Bay mean to the local people?



Collection of scallops on the shores



Public beach, adjacent to LNG terminal



2002 project design included an LNG jetty of 1400 m length, around just 160,000 m³ of dredging

2003 project design (finally implemented) involved an LNG jetty that was 800 m in length, requiring around 1,680,000 m³ of dredging. Final amount of dredging was about 2 million m³.



Mouth of Mereya river

LNG plant and
export terminal

2005

Dredging work and dumping of dredged materials into Aniva Bay

Snow crab resource distribution

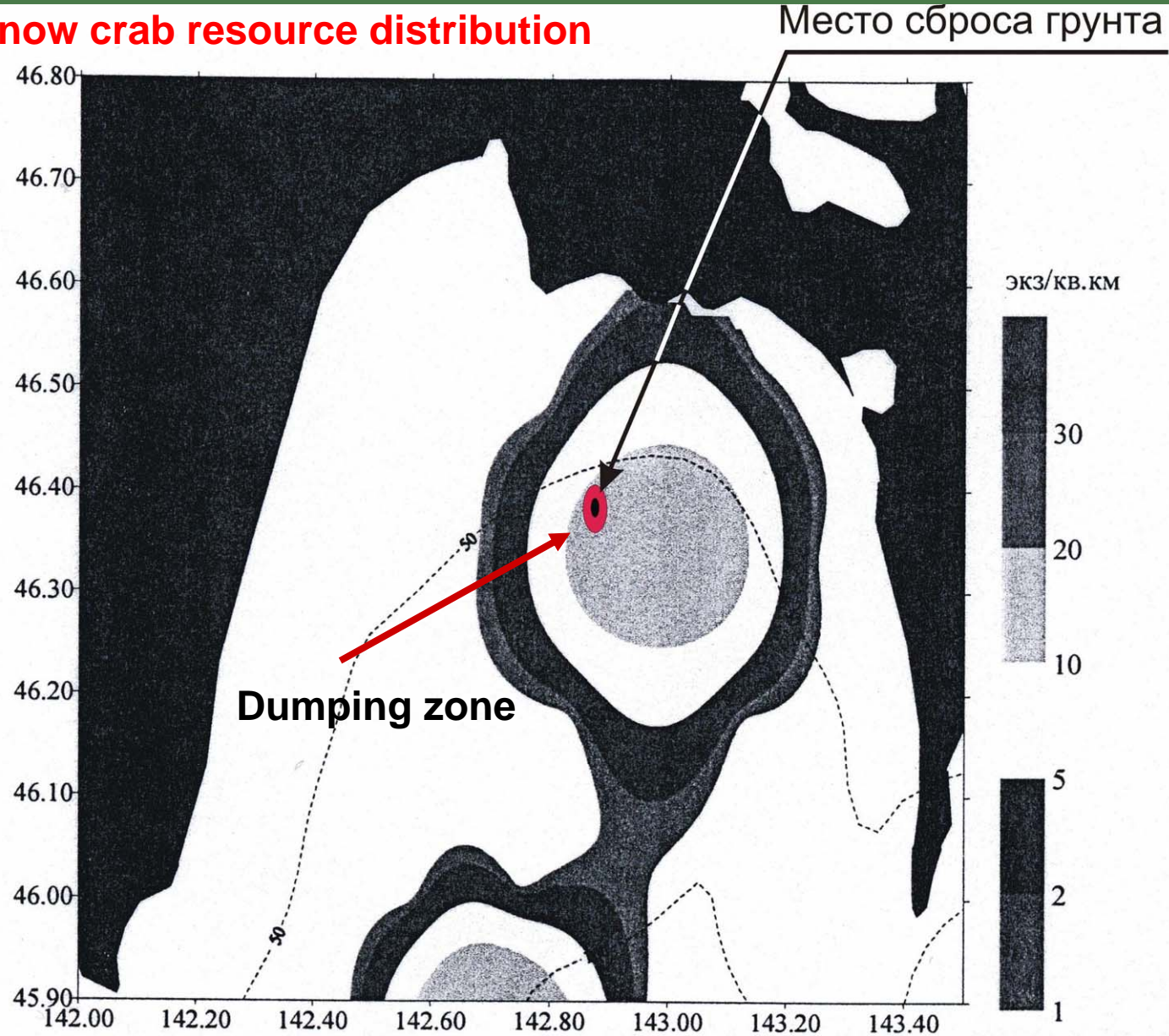
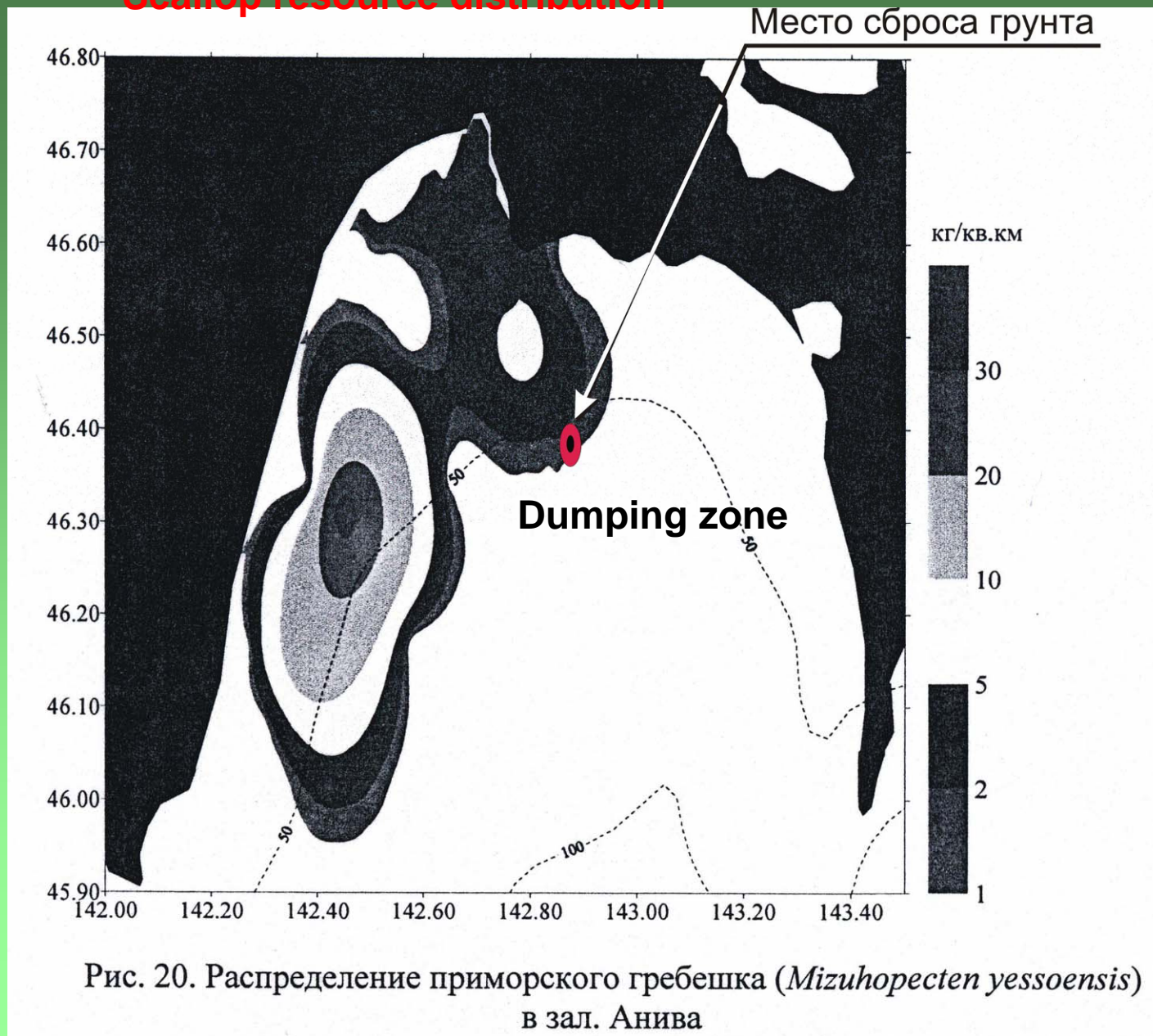


Рис. 7. Распределение промысловых самцов стригуна опилио в зал. Анива

Dredging work and dumping of dredged materials into Aniva Bay

Scallop resource distribution



**Dredging work and dumping of dredged materials into Aniva Bay
BEFOR**



Dredging works in Aniva Bay



Dredging work and dumping of dredged materials into Aniva Bay AFTER

2 390 200 m³



The same area AFTER

The pictures were done in Aniva bay, a year after dumping, on the area, which, according SEIC, should not have any negative impact (sedimentation) from the dumping zone.

Now this area is almost underwater desert



Shell's promises for Sakhalin at the beginning and realities

Labor and salaries for local people

Realities: mostly foreigners and homeland Russians

Significant income for regional and local budget

Realities: Moscow gets around 90% profits, very few on the local level

Gasification of local infrastructure

Realities: No any gasification at all

Increase of housing for local population

Realities: Unbelievable increase of housing prices, company constructs houses for temporary workers only

Implementation of best standards and practices

Realities: in many fundamental aspects the implemented standards lower than Russians

To be a good and friendly neighbor for a local community

Realities: Shell lies, conceals facts and misleads the public, destroys local infrastructure, creates significant social impact without appropriate mitigation

To listen people's concerns

Realities: Brain washing, creation of "right perception", manipulation of media, domestication of local NGOs and active groups of citizen society

Protest against Sakhalin II Project
(January, 2006, LNG plant construction site)



Sakhalin indigenous people's protest. They are not satisfied with Shell's IP development plan as it doesn't include their key demand – new independent SEIA

