

APPENDIX 2.7
PUBLIC OPEN DAY PHOTOGRAPHS AND POSTERS

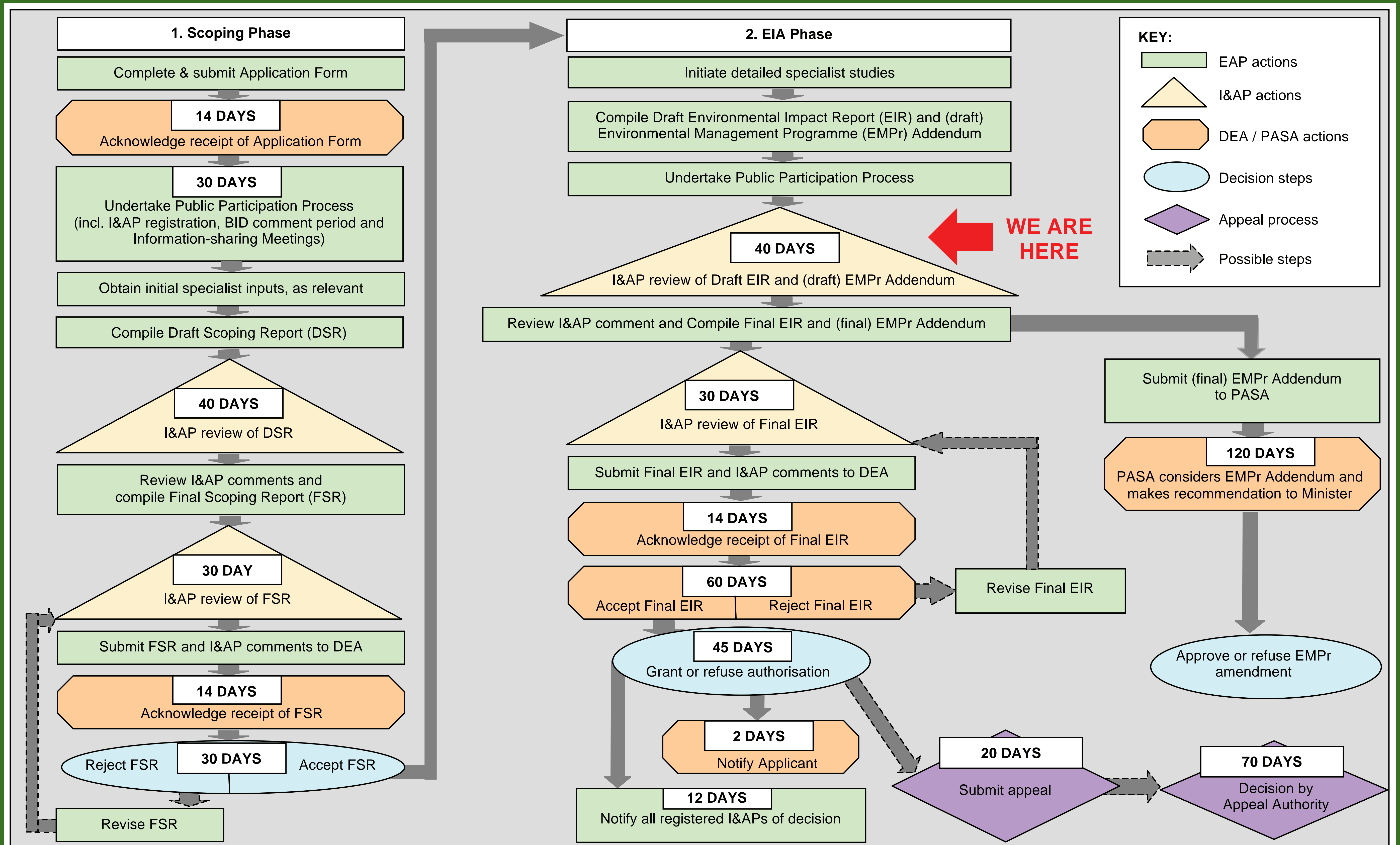
PHOTOGRAPHS FROM THE CAPE TOWN PUBLIC OPEN DAY (11 MARCH 2015)



PHOTOGRAPHS FROM THE SALDANHA PUBLIC OPEN DAY (12 MARCH 2015)



Impact Assessment process



Flow diagram showing the integrated EIA and EMPr Addendum process

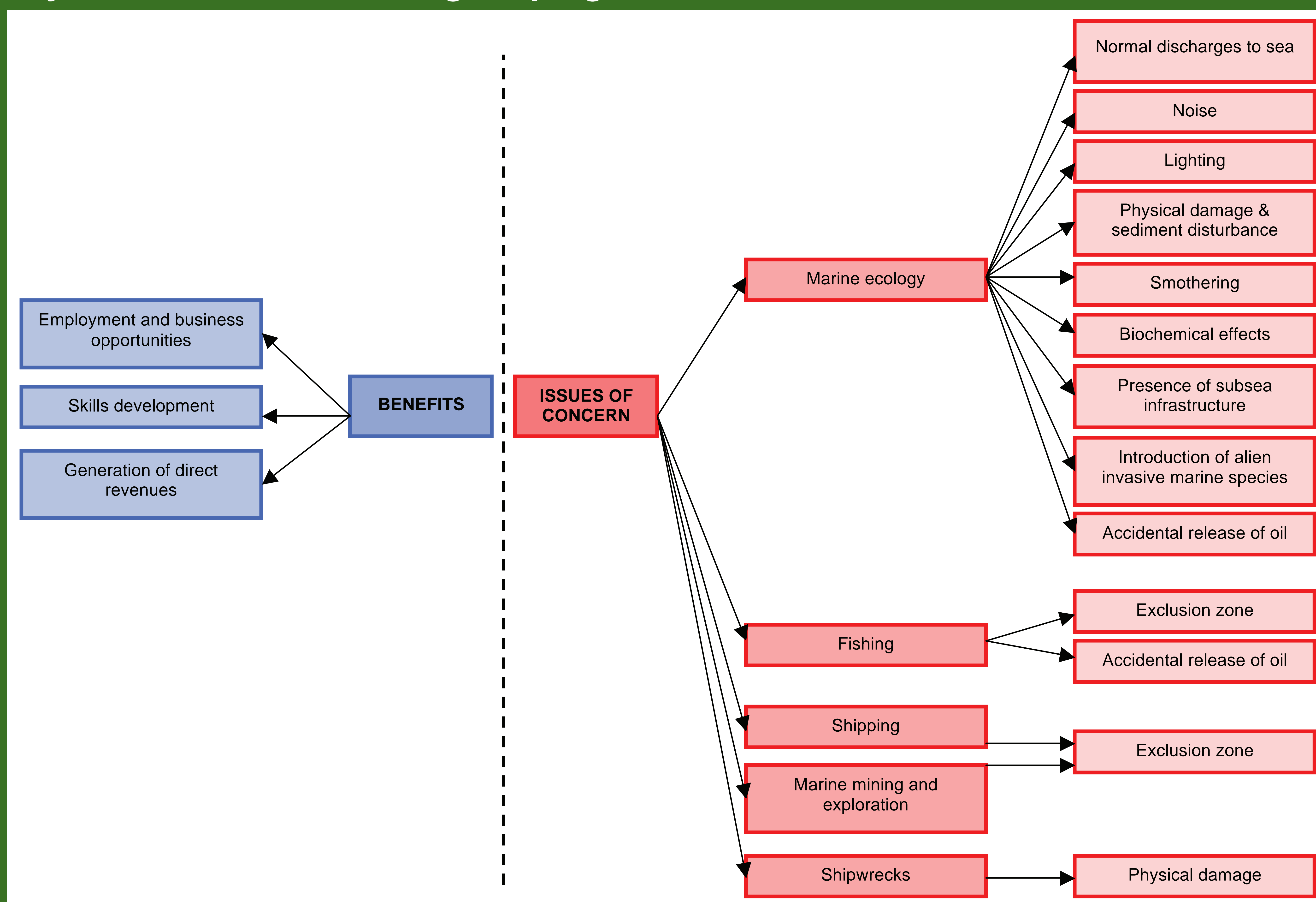
Scoping Phase:

Public participation steps:

- Advertising (twice during Scoping Phase):
 - National (*Sunday Times* and *Rapport*)
 - Regional (*Cape Times* and *Die Burger*)
 - Local (*Weslander*, *Ons Kontrei*, *Platteland* and *Namakwalander*)
- Authority meetings:
 - Petroleum Agency of South Africa
 - Department of Environmental Affairs
 - Department of Agriculture, Forestry and Fisheries
 - Namakwa District Municipality
 - Nama-Khoi Local Municipality
 - Richtersveld Local Municipality
 - Northern Cape Provincial Coastal Committee
- Public Open Days and Information-sharing Meetings:
 - Cape Town
 - Saldanha
- Distribution of reports for comment:
 - Background Information Document
 - Draft Scoping Report
 - Final Scoping Report



Key issues identified during Scoping:



EIA Phase:

Specialist studies:

- Cuttings and Oil Spill Modelling
- Fisheries
- Marine fauna



Draft Environmental Impact Report (EIR) and EMPr Addendum:

The Draft EIR and EMPr Addendum have been distributed for a 40-day comment period from **2 March 2015 to 15 April 2015**.

Any comments on the draft reports should be forwarded to NMA.



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Impact Assessment findings: Marine fauna

Impacts from normal drilling unit and vessel operation include:

- Emissions from fuel combustion and well testing; and
- Discharges to sea from galley waste, deck / machinery space drainage and sewage.



Based on the short drilling duration, small waste volumes, distance offshore (~230 km) and high energy sea conditions, impacts are considered to be of **VERY LOW** significance.

Key mitigation:

- Compliance with MARPOL 73/78 standards; and
- Implementation of a Waste Management Plan.

Key impacts on benthic fauna from normal drilling operations include:

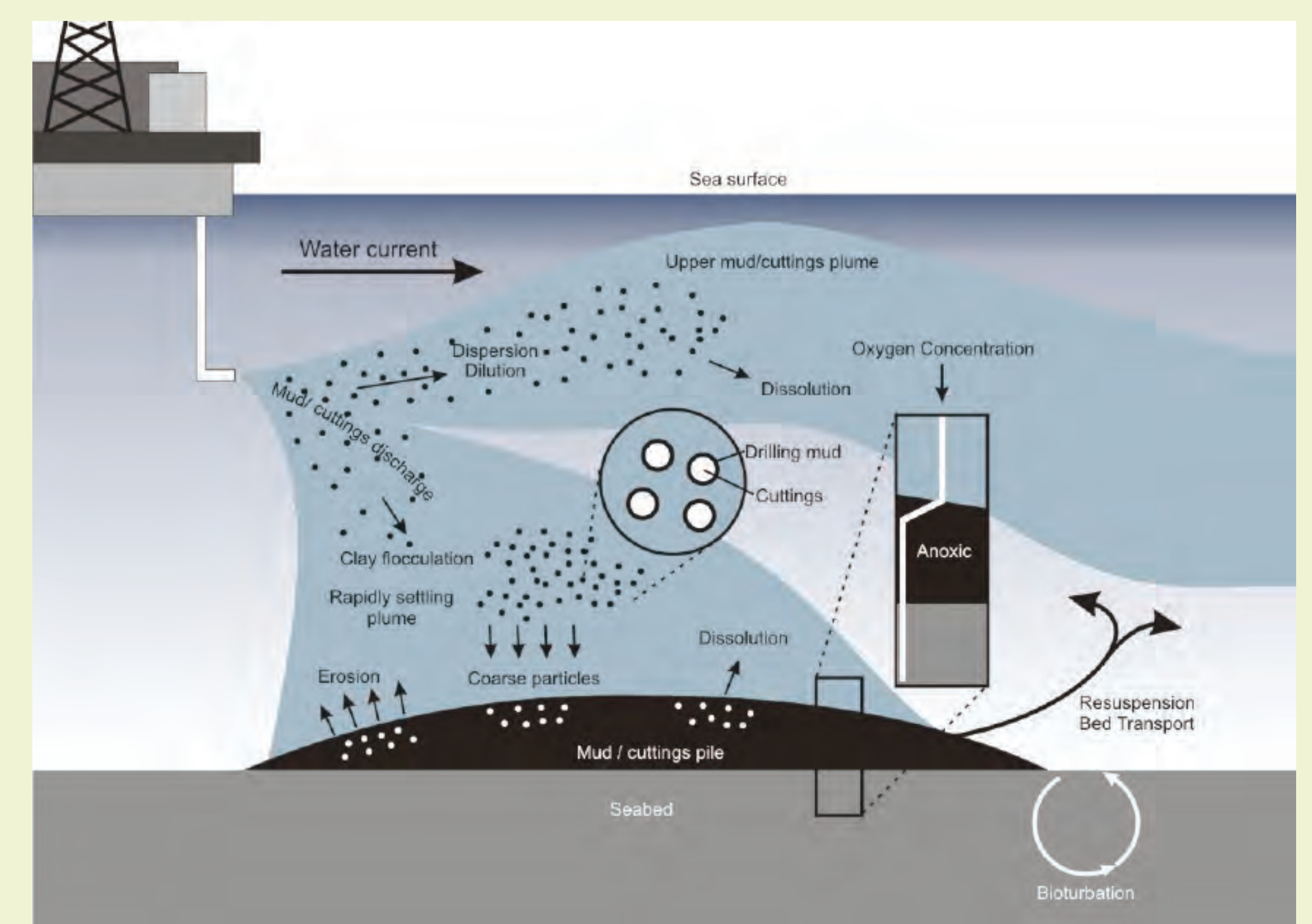
- Physical damage to seabed (~ 3 m² per well);
- Smothering by drill cuttings;
- Biochemical effects of discharged drilling fluid;
- Increased turbidity; and
- Oxygen depletion.

Impacts are considered to range from **VERY LOW** to **LOW** significance, based on the following factors:

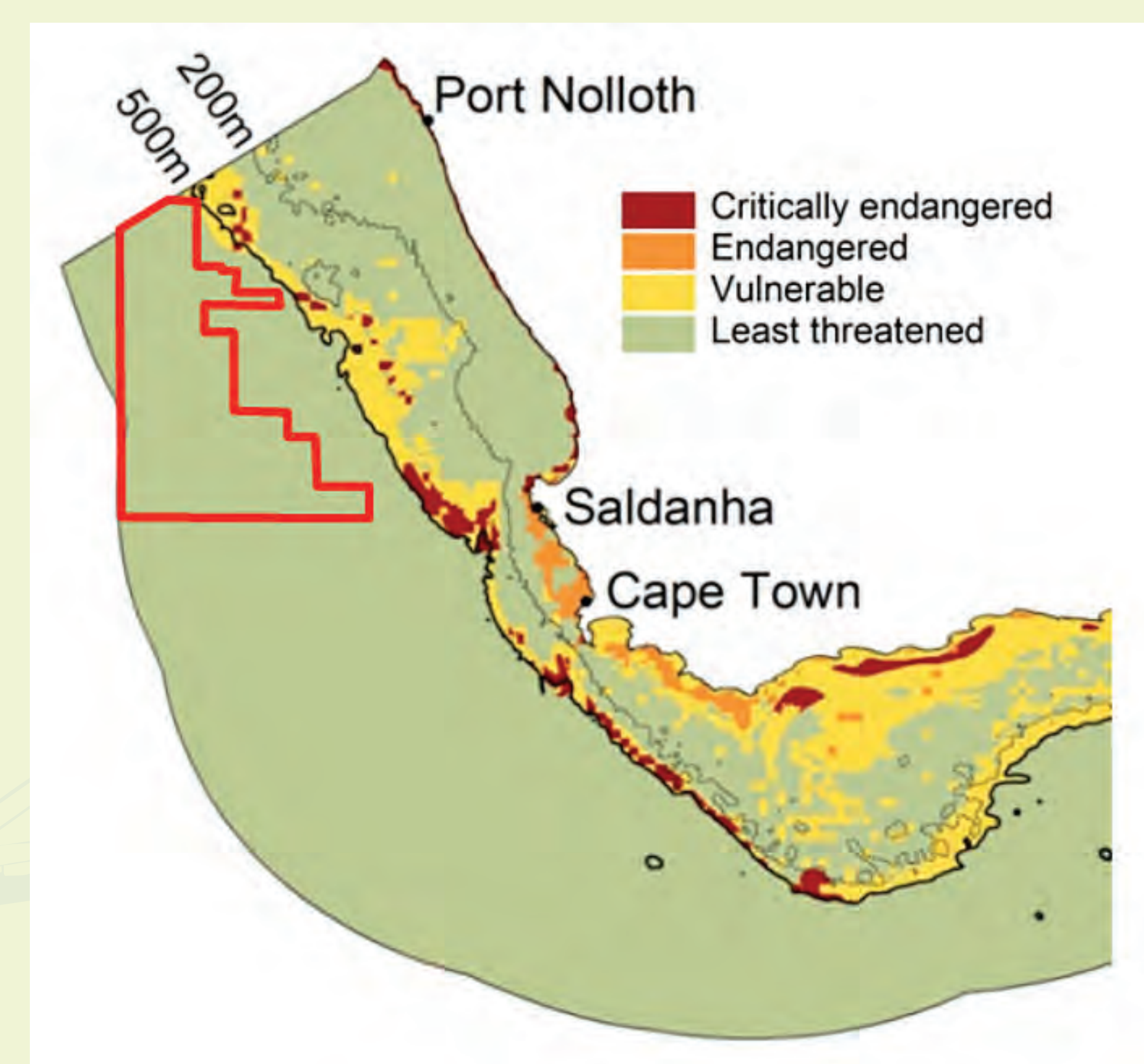
- Extent of cuttings deposition (less than 3 cm thick at 120 m from the well);
- Habitat type ('Least Threatened');
- Benthic faunal recovery (2 – 5 years); and
- Low water solubility and bioavailability of drilling fluids.

Key mitigation:

- Undertake ROV survey.
- Adjust well location to avoid vulnerable habitats and / or species;
- Reduce extent of disturbance by using innovative technologies (e.g. weighted muds) and discharging cuttings at least 5 m below the surface;
- Maximise use of Water-based Muds (WBM); and
- Use low-toxicity and partially biodegradable additives.



Hypothetical dispersion and fates of cuttings following discharge to sea.



Benthic habitat types



Impact Assessment findings: Fishing



Only the large pelagic long-line sector would be impacted by the temporary safety zone around drilling unit.

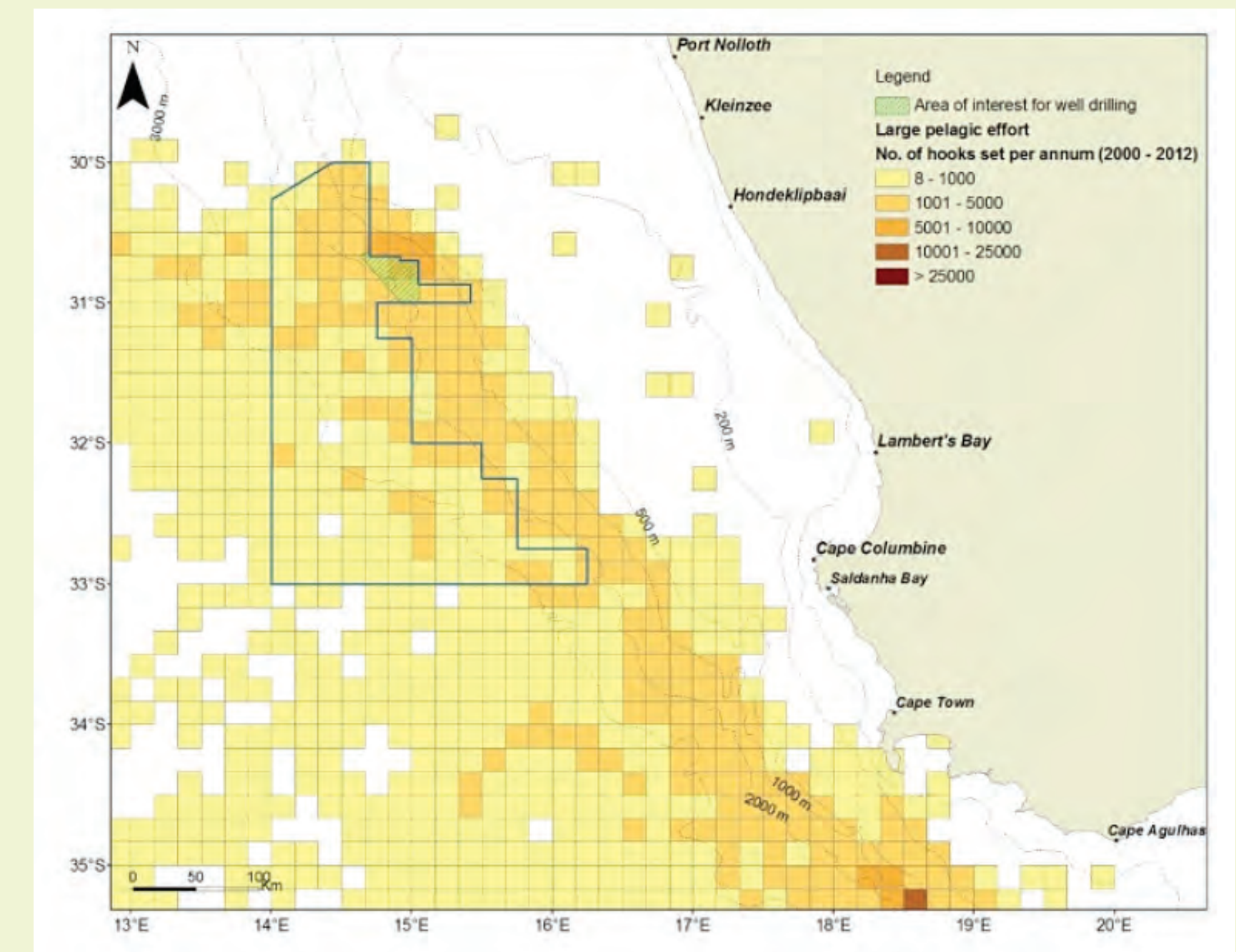
Impact is considered to be of **VERY LOW** significance, based on the following factors:

- Limited extent of exclusion (500 m around drilling unit);
- Limited catch and effort in target area (0.9% of national effort and 1.1% of national catch); and
- Short duration (3 months per well).

Key mitigation:

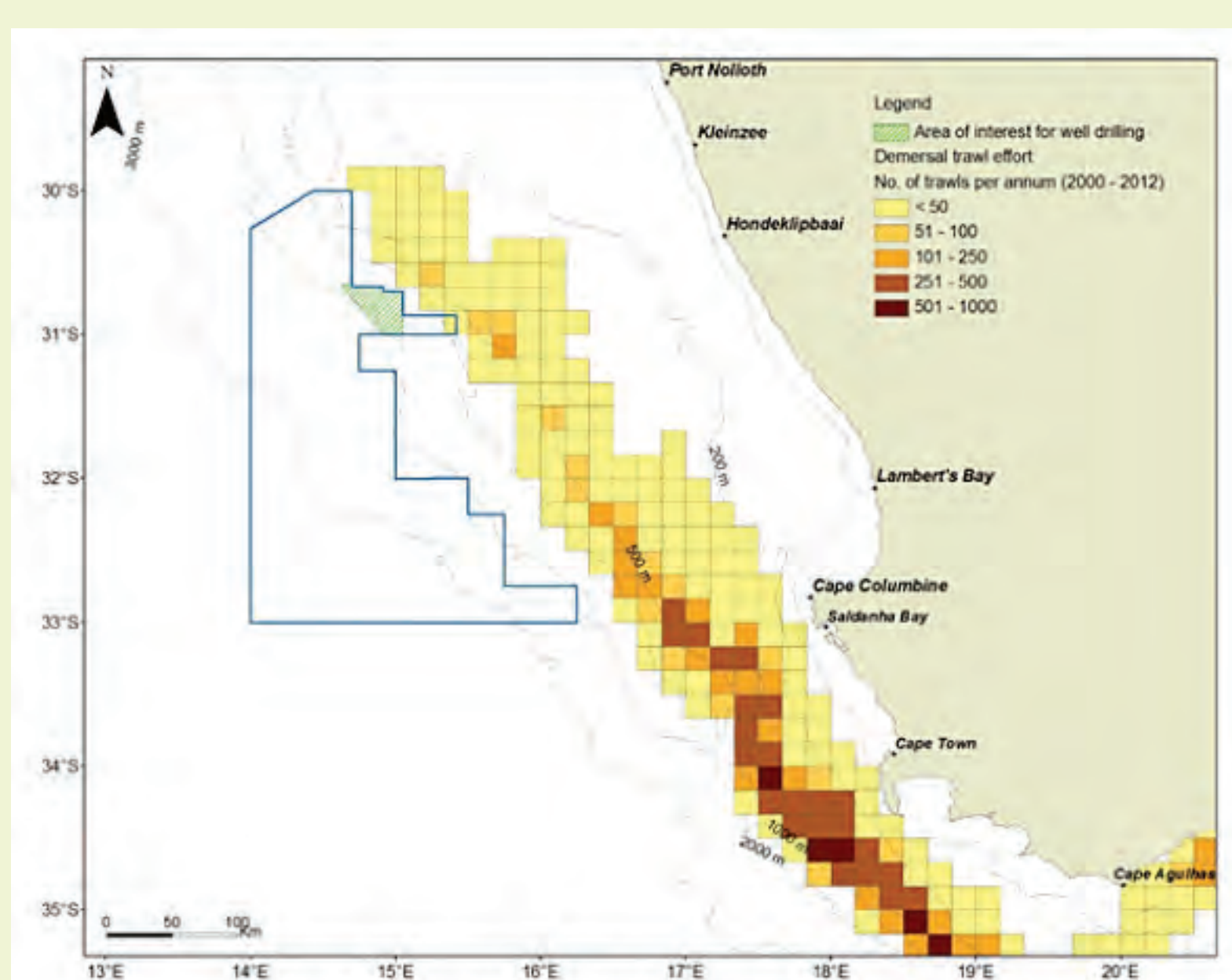
- Inform key stakeholders of drilling programme prior to drilling (including co-ordinates of well location, timing and duration of proposed activities);
- Release Radio Navigation Warnings and Notices to Mariners throughout the drilling period.

Large pelagic long-line effort

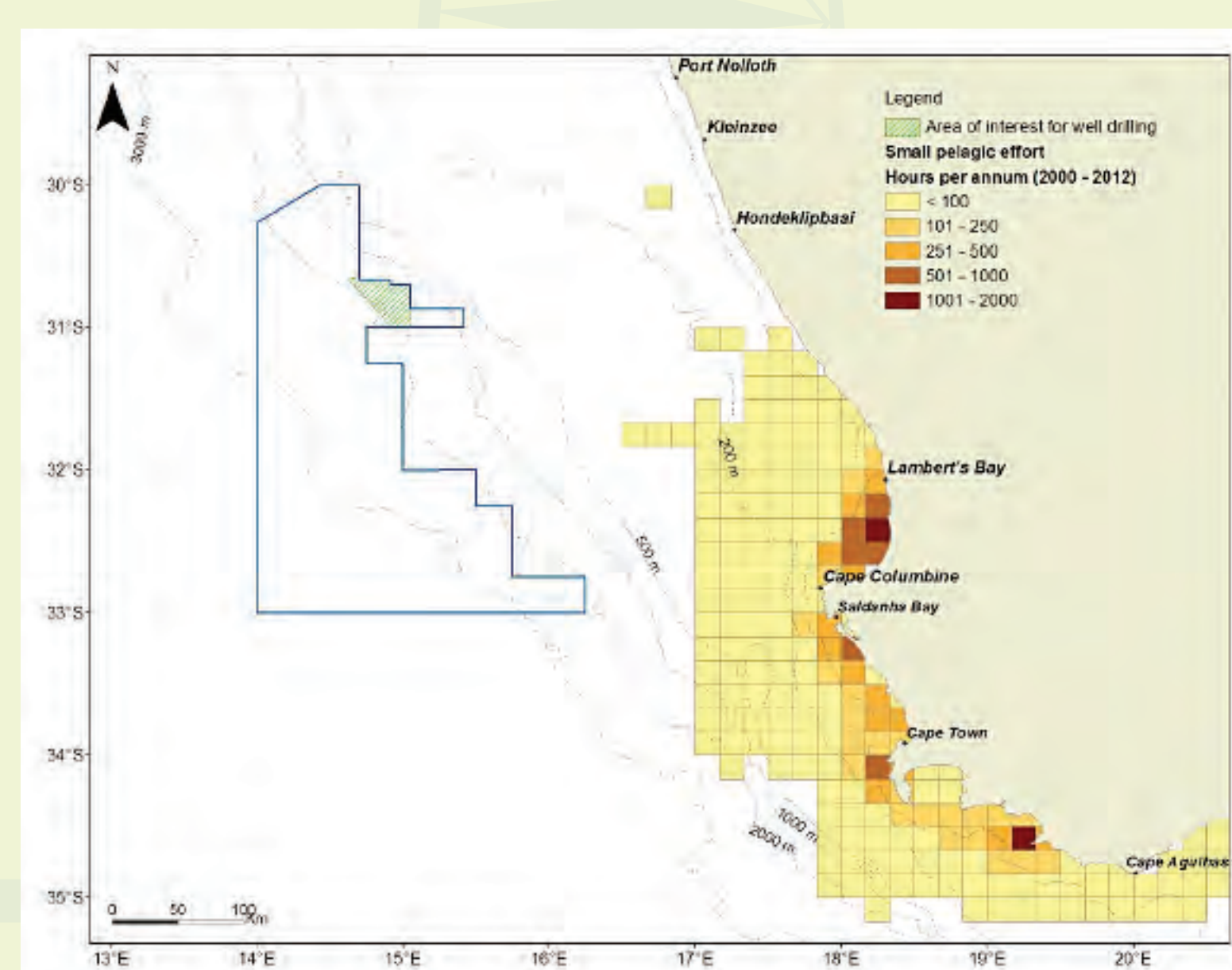


There would be **NO IMPACT** on the following sectors during normal drilling operations:

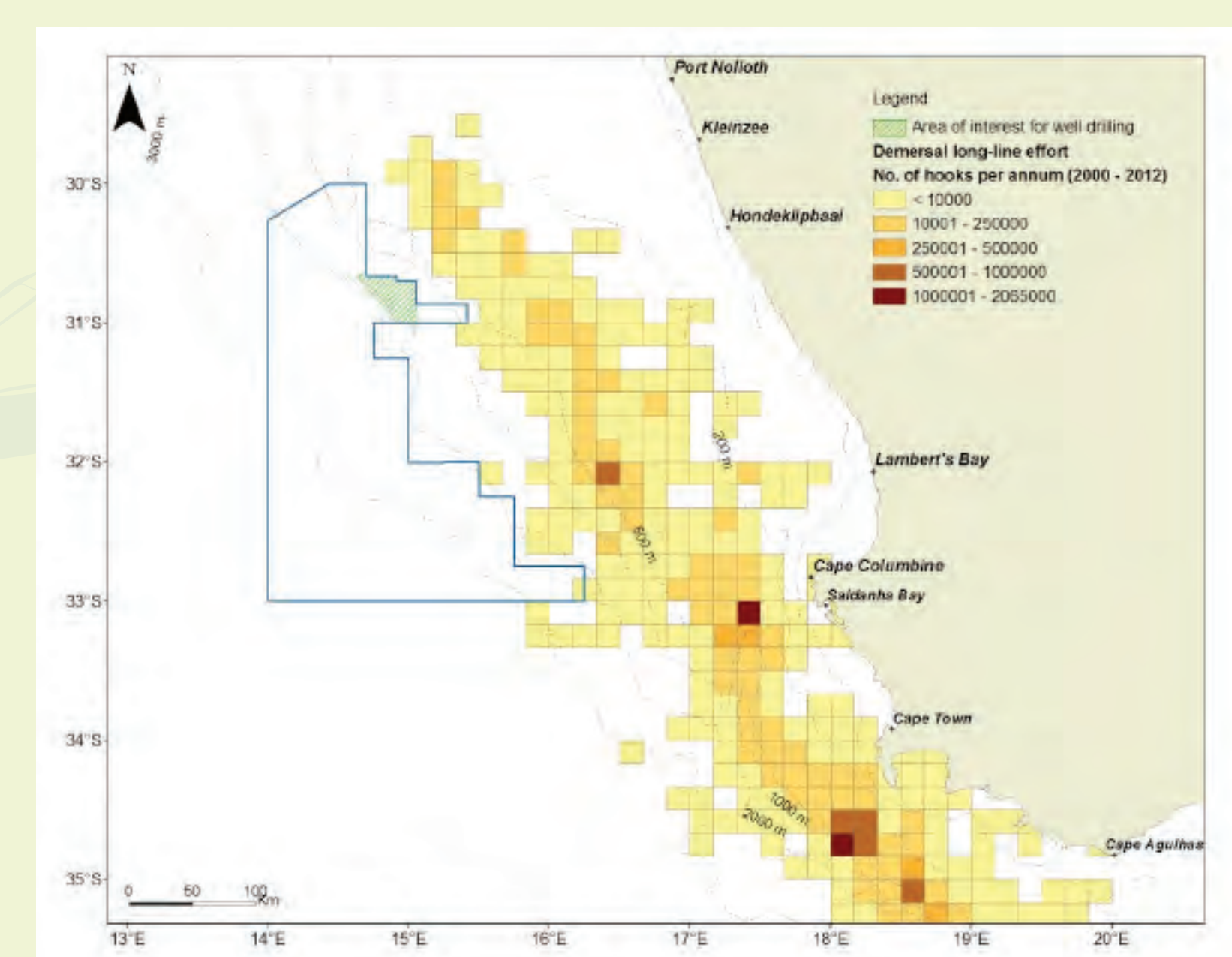
Demersal trawl effort



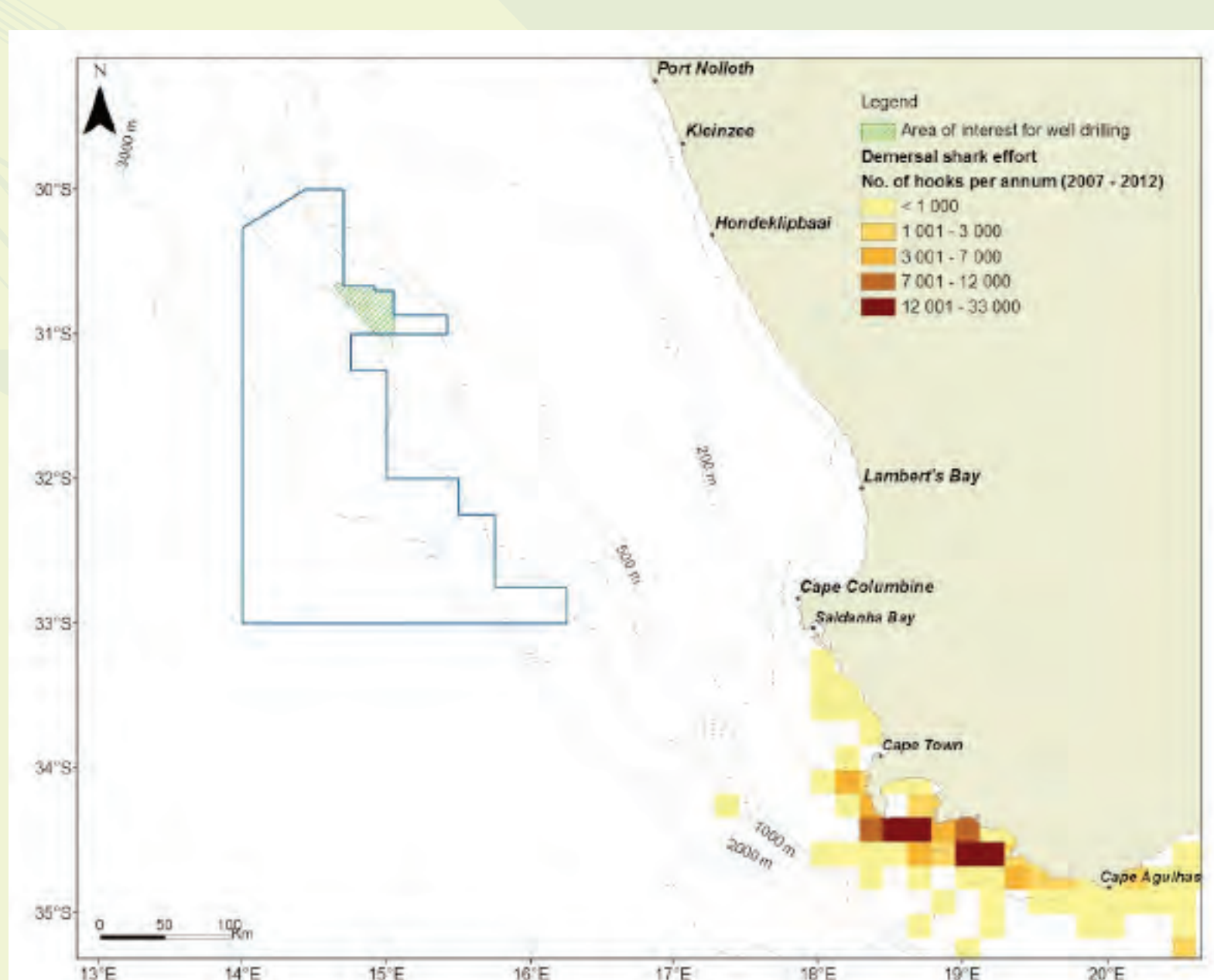
Pelagic purse-seine effort



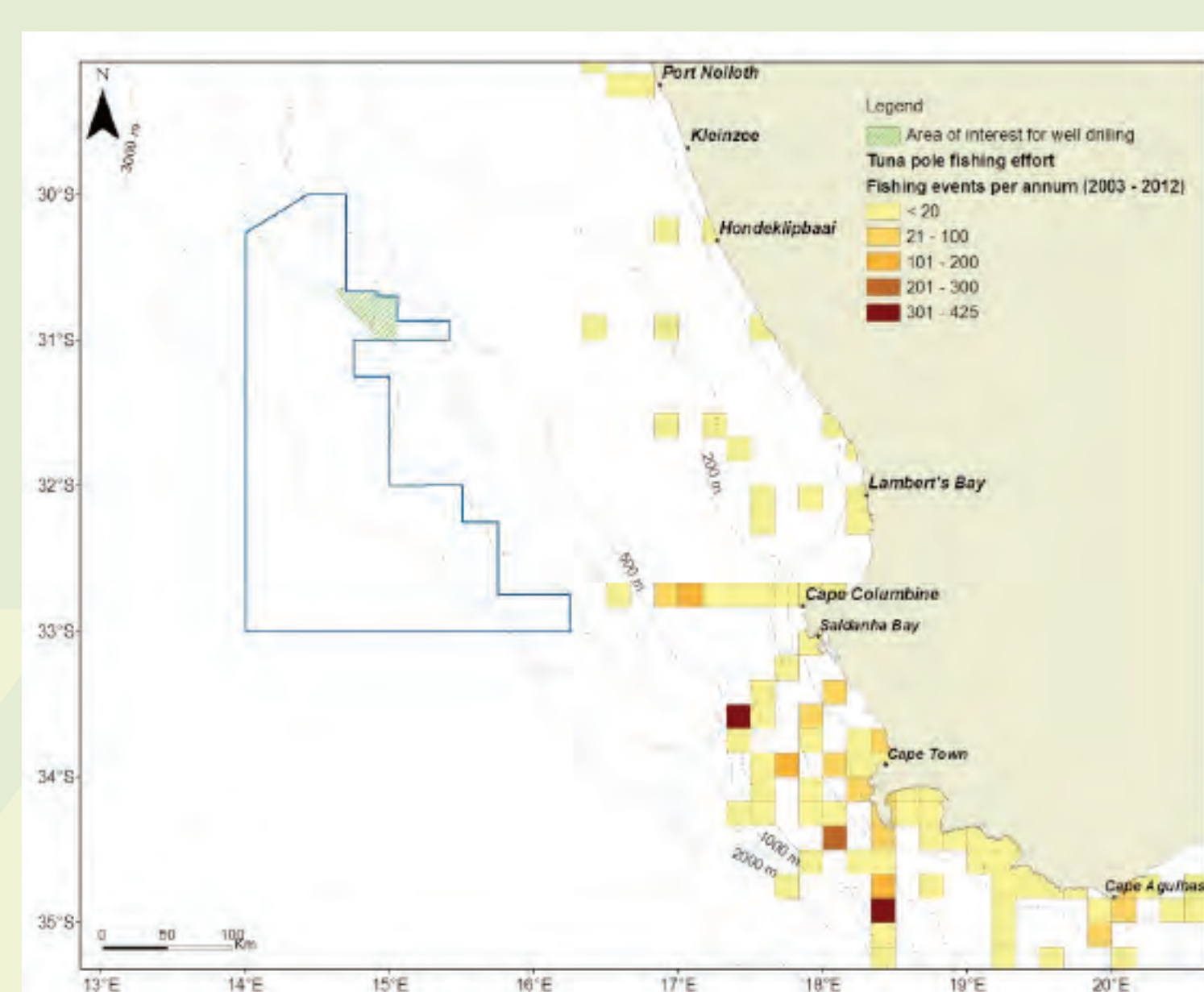
Demersal long-line effort (hake)



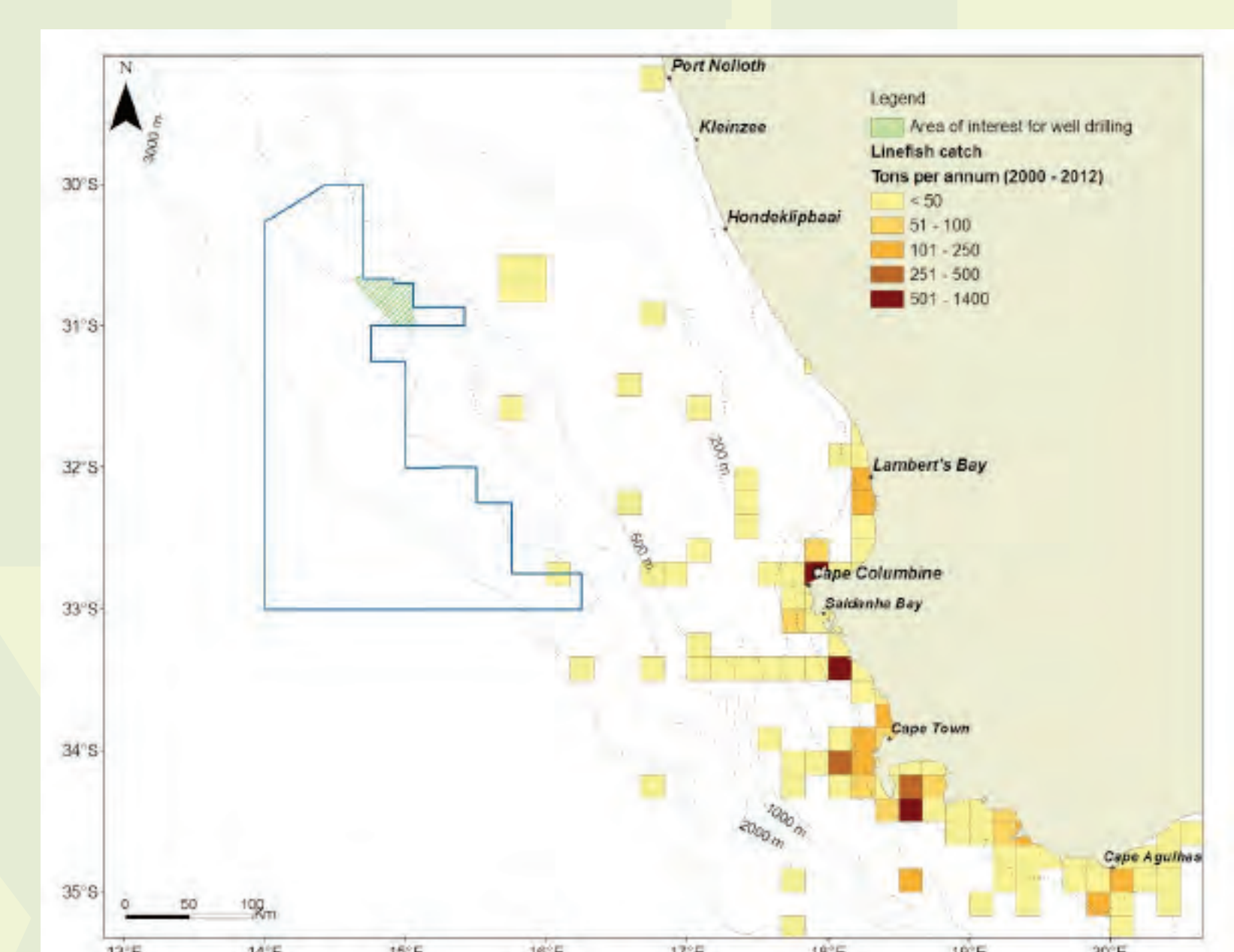
Demersal long-line effort (shark)



Tuna pole effort



Traditional line-fish catch

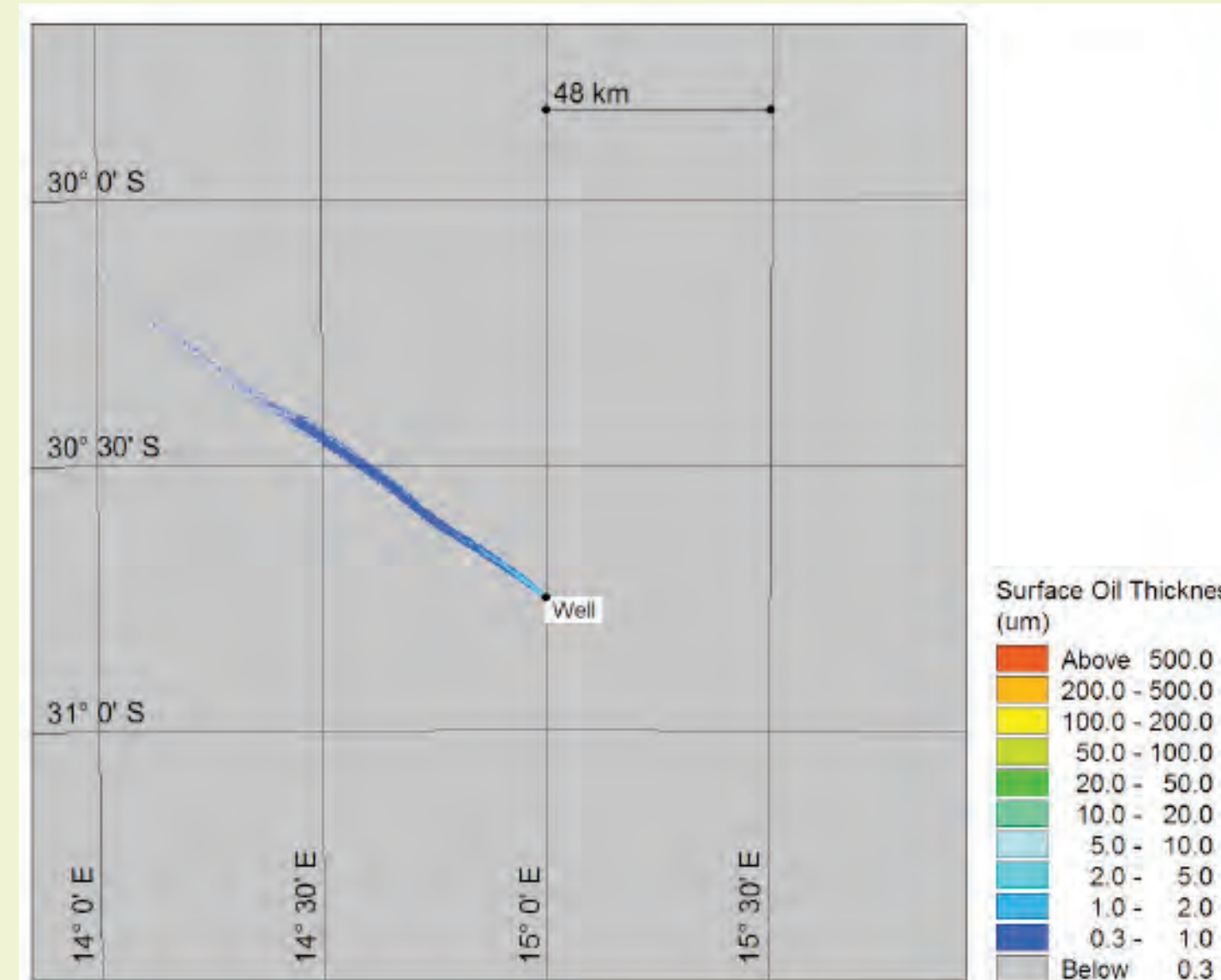


Impact Assessment findings: Oil spill modelling

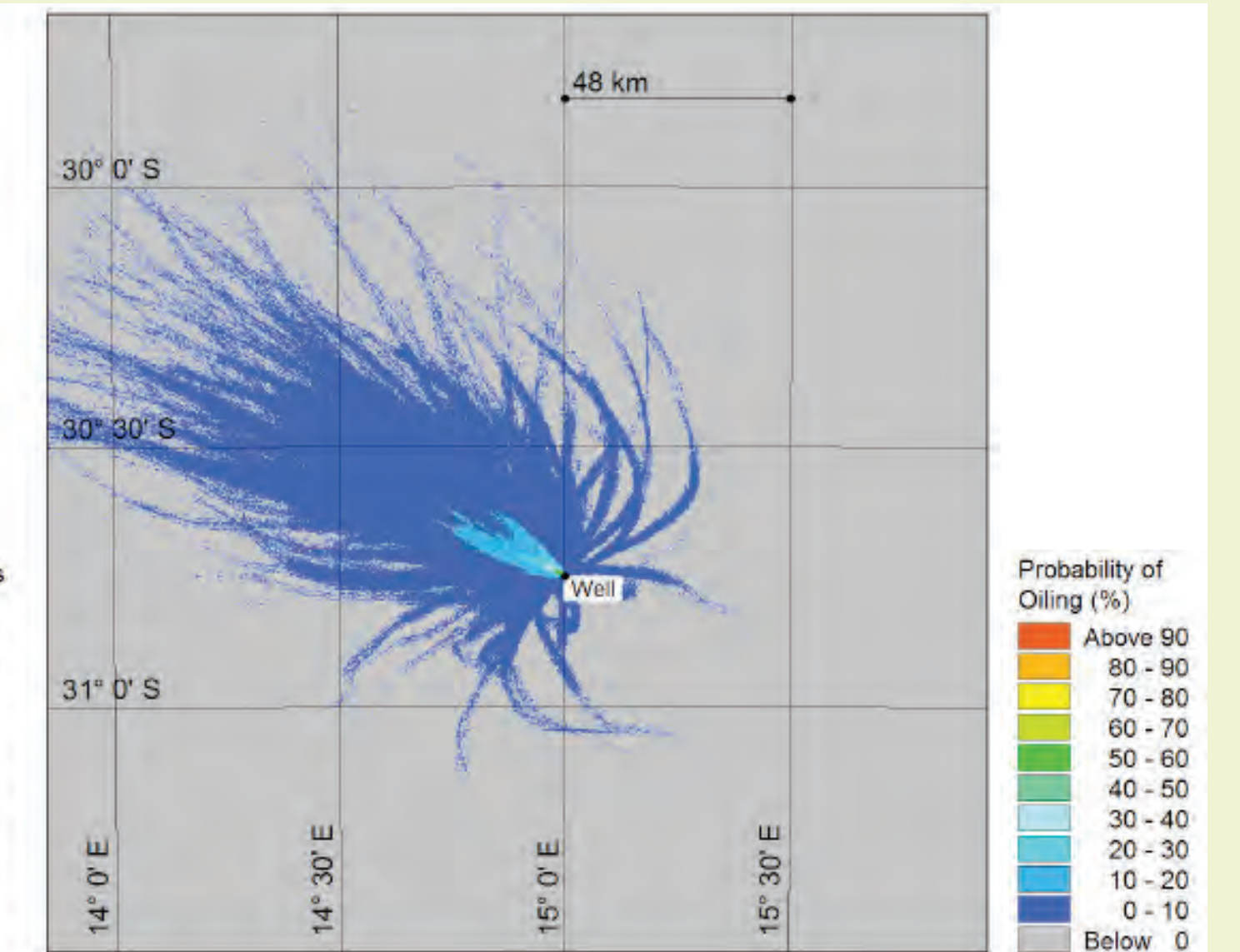
Small spill: 1 ton hydraulic fluid

- Predicted to travel in a narrow plume up to 150 km in a NW direction.
- Oil would remain on the sea surface for a maximum of 2 days.
- No probability of shoreline oiling.
- Impact significance: VERY LOW.

Predominant trajectory



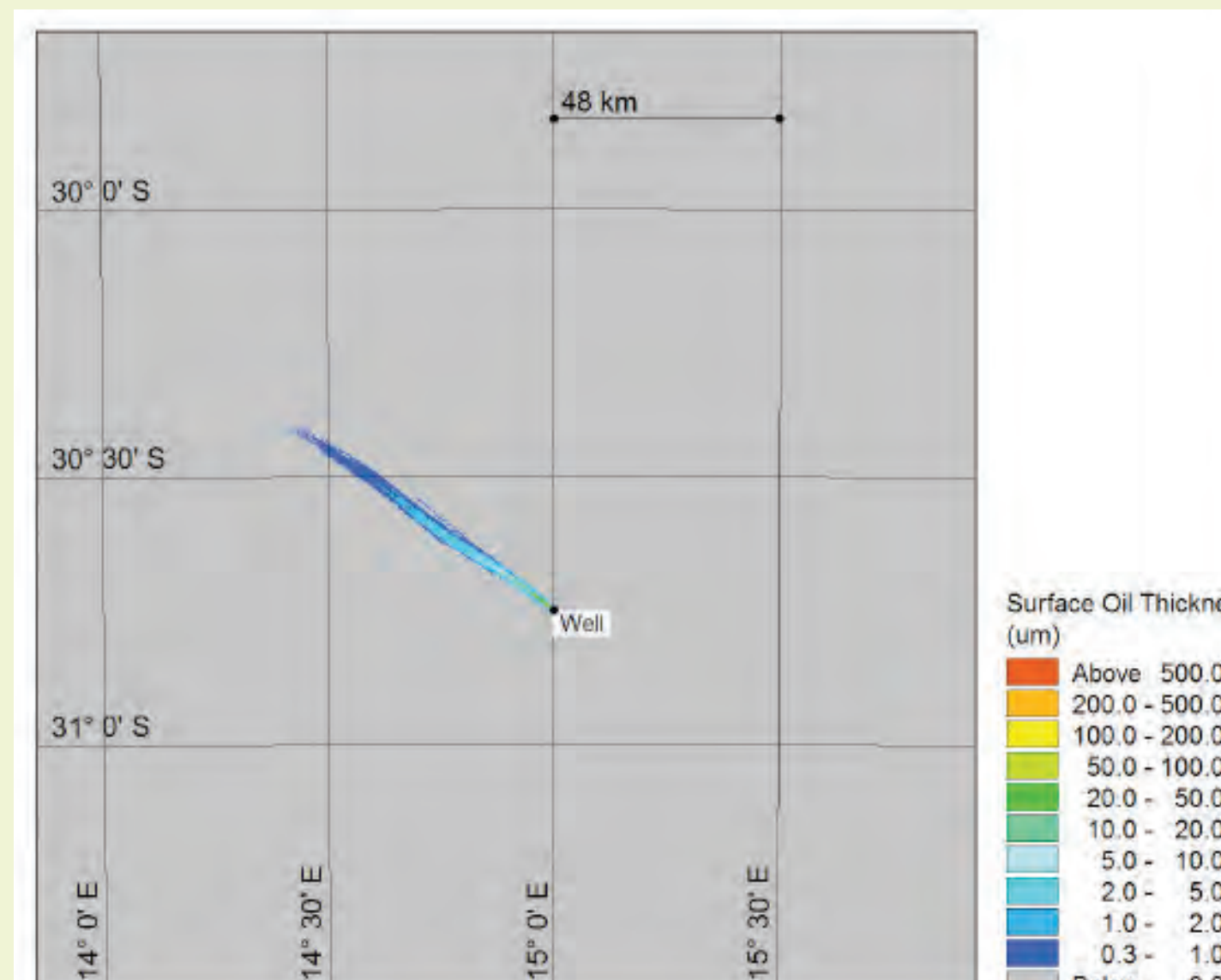
Probability plot: Summer



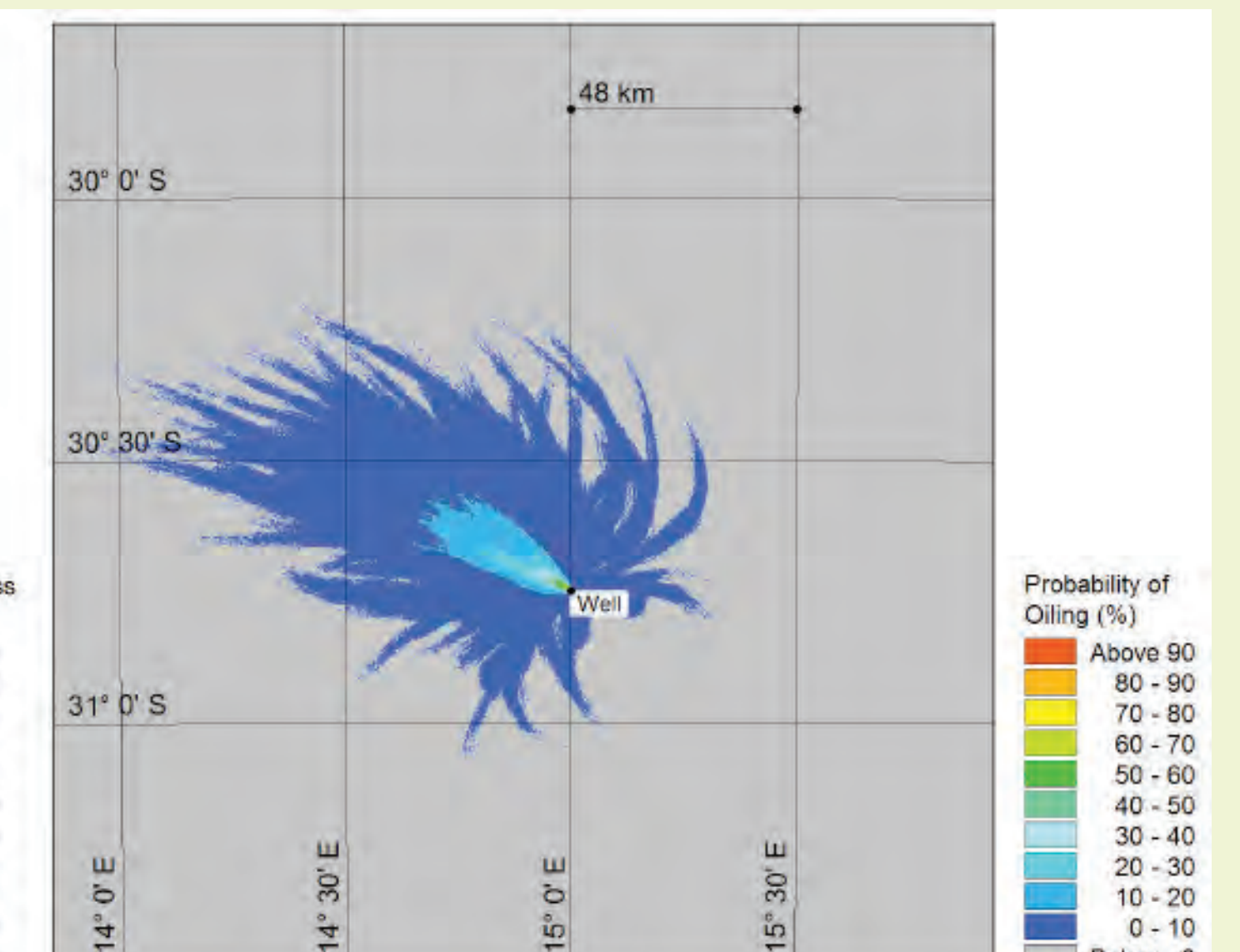
Medium spill: 10 tons diesel

- Predicted to travel in a narrow plume up to 110 km in a NW direction.
- Oil would remain on the sea surface for a maximum of 1.5 days.
- No probability of shoreline oiling.
- Impact significance: VERY LOW.

Predominant trajectory



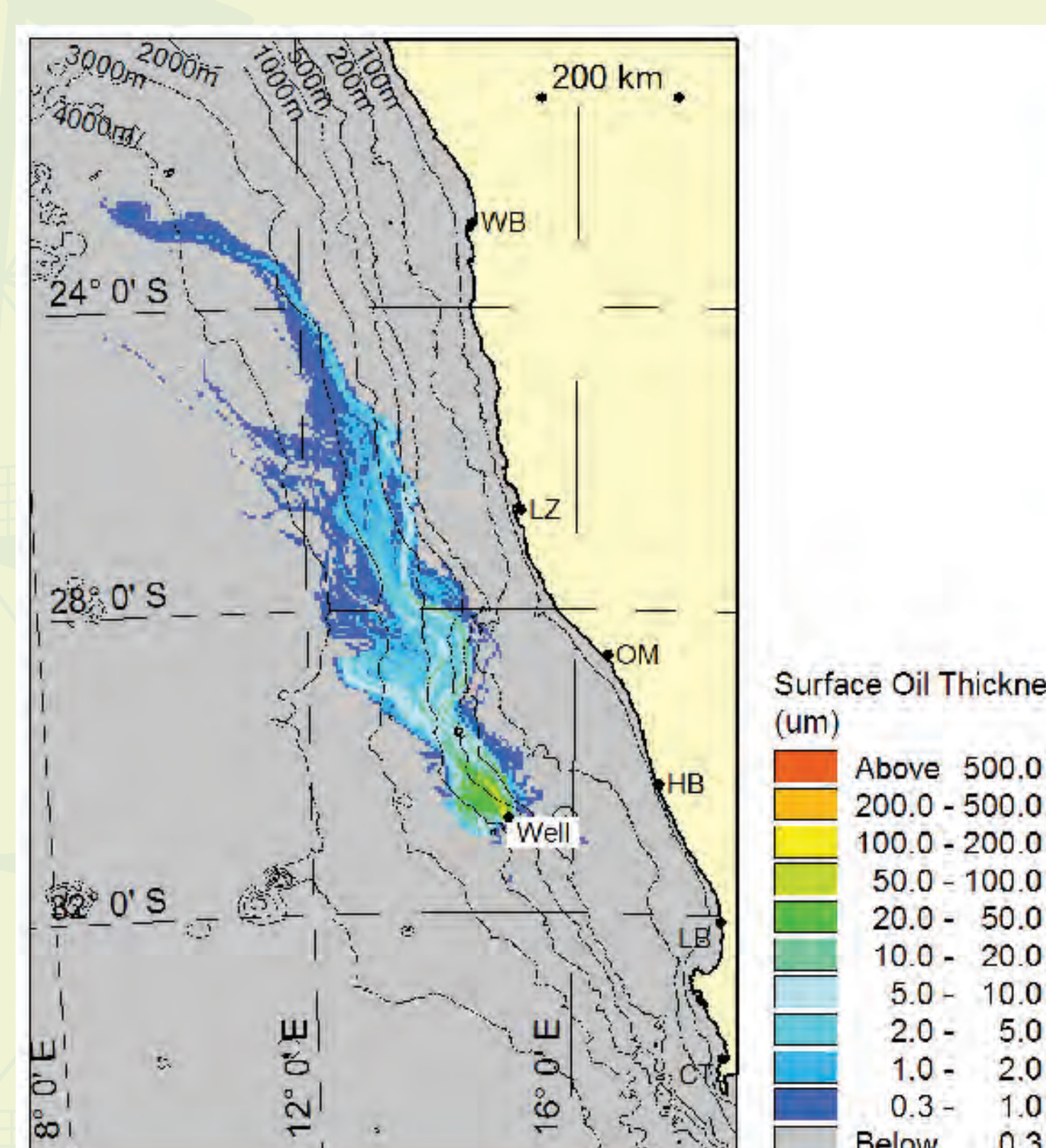
Probability plot: Summer



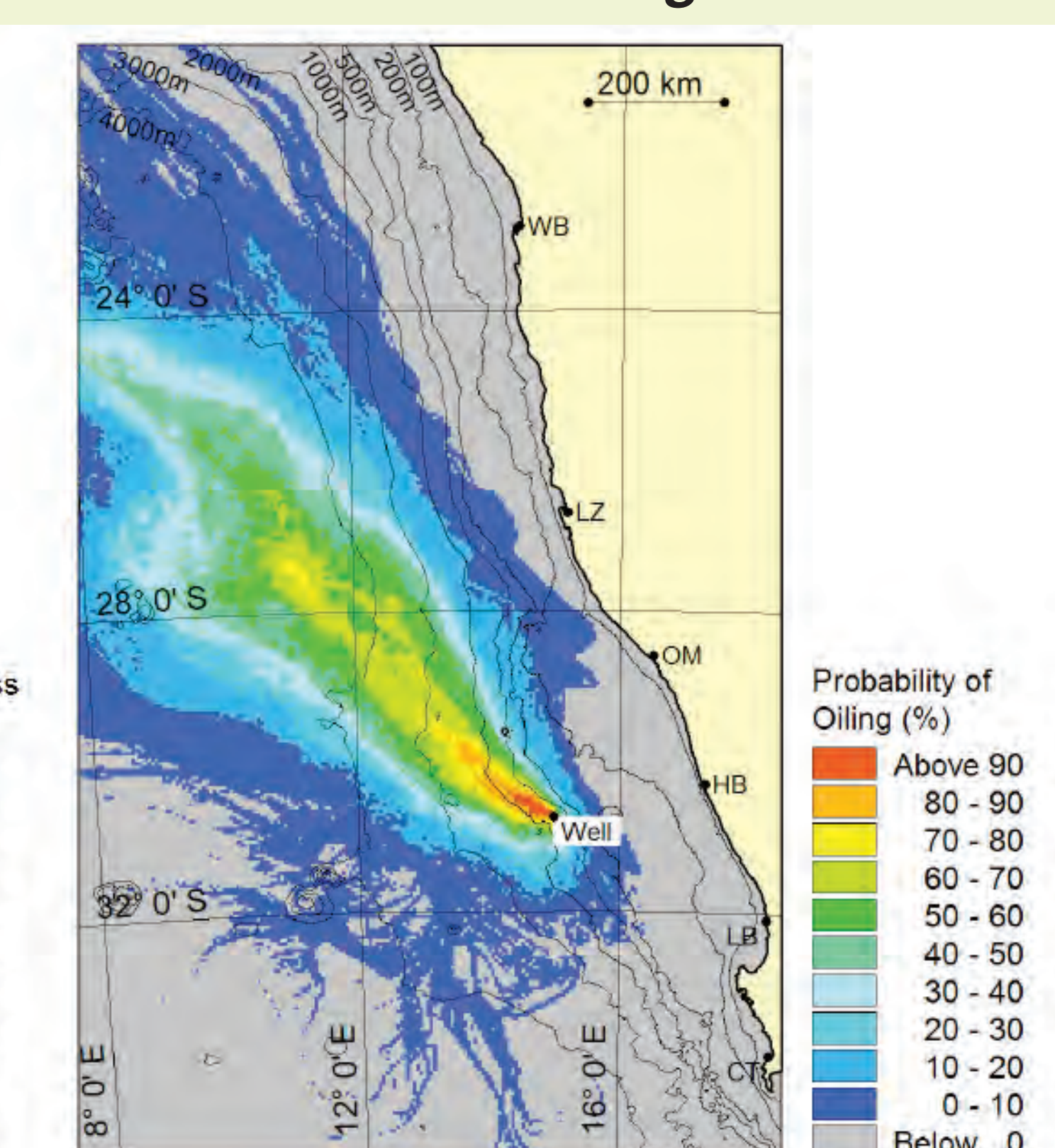
5-day blow-out

- Predicted to travel in a NW direction.
- Under the following scenarios oil would not reach the shore:
 - During summer (all weathering scenarios).
 - During winter (fast and medium weathering scenarios).
- <10% probability of shoreline oiling in winter under the slow weathering scenario.
- Impact significance: HIGH.

Predominant trajectory



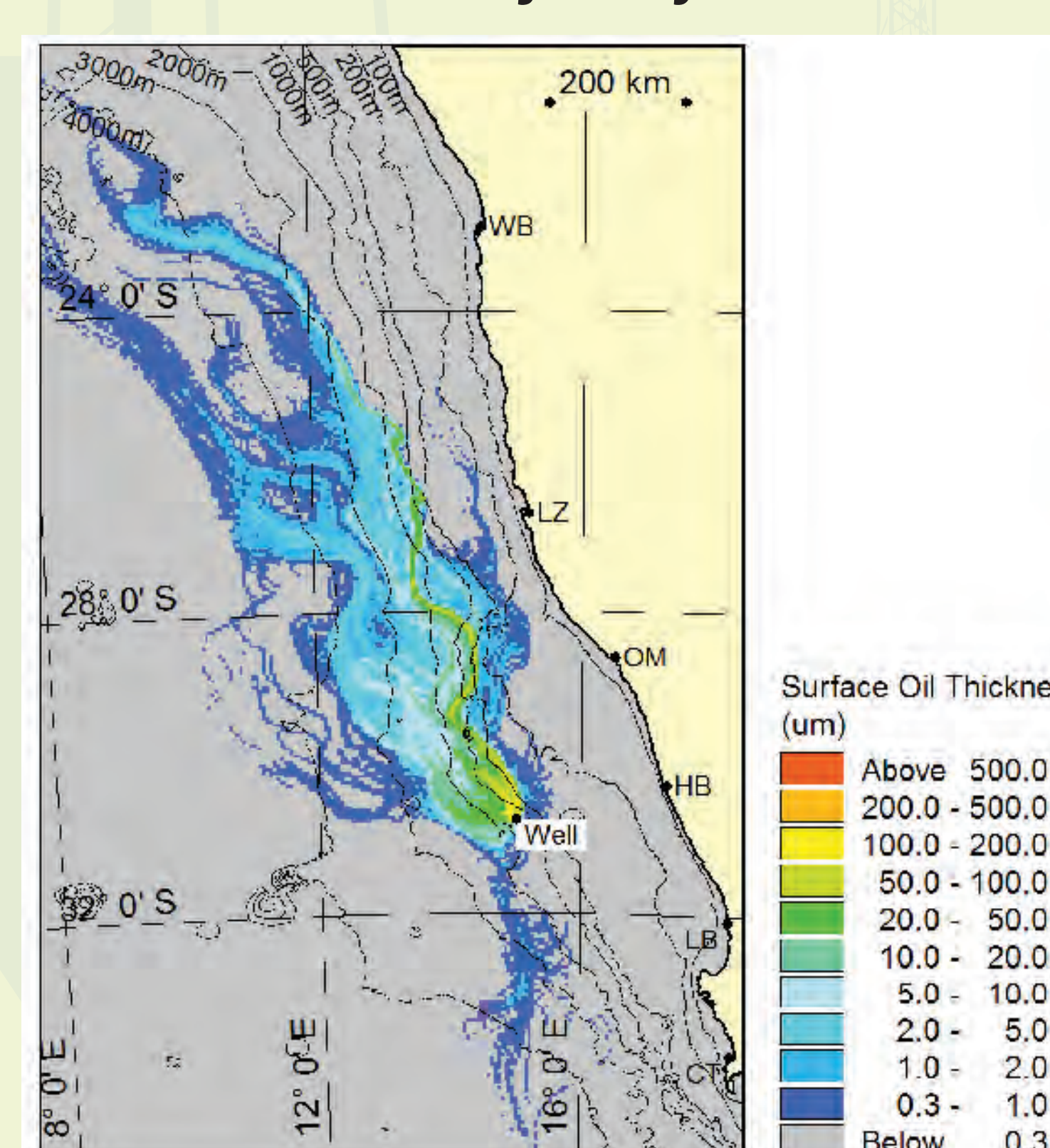
Probability plot: Summer; medium weathering



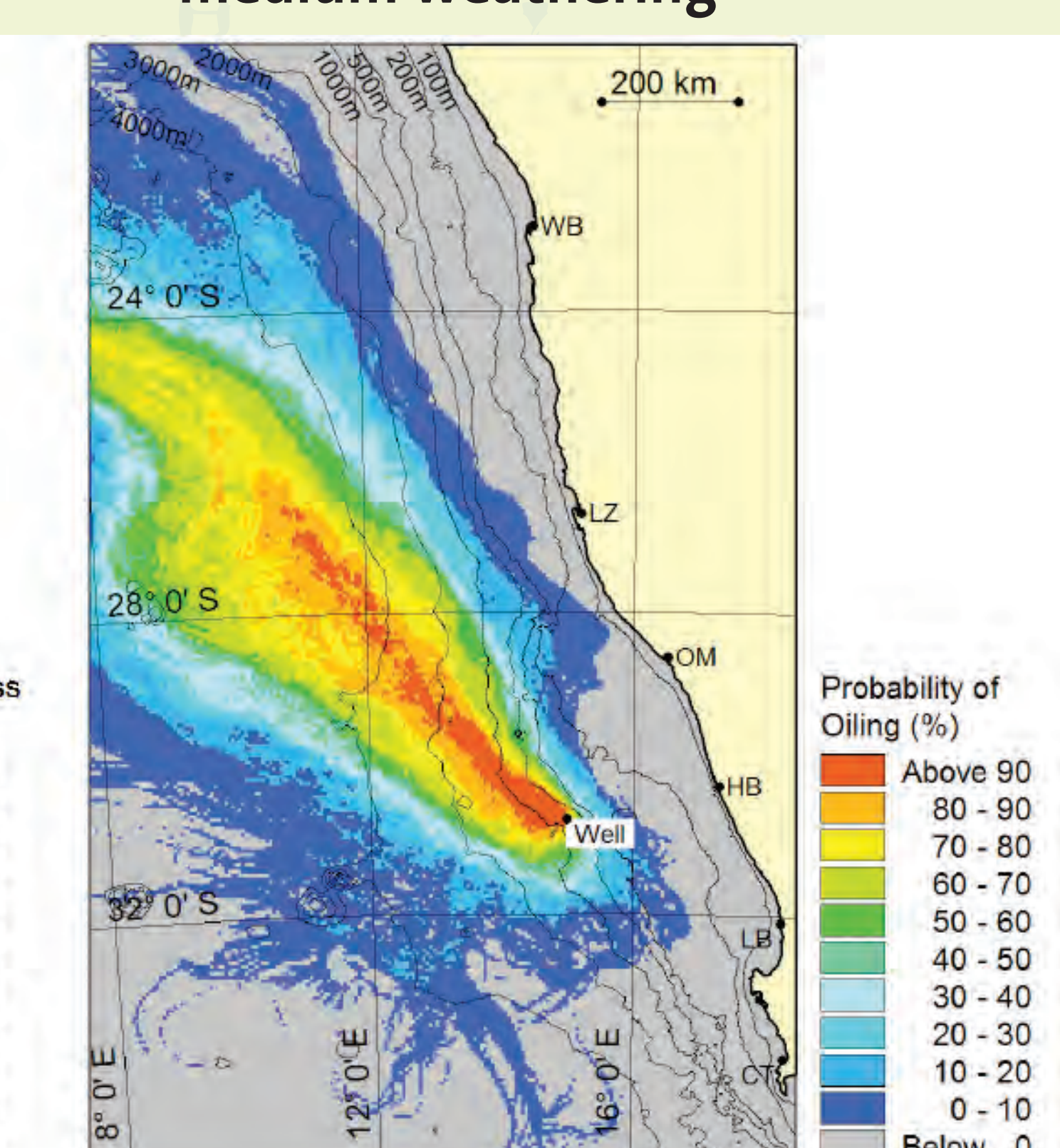
20-day blow-out

- Predicted to travel in a NW direction.
- During summer (fast and medium weathering scenarios) would not reach the shore
- Under the following scenarios oil would reach the shore:
 - <10% probability of shoreline oiling in winter under medium weathering.
 - <10% probability of shoreline oiling in summer & winter under slow weathering.
- Impact significance: HIGH.

Predominant trajectory



Probability plot: Summer; medium weathering



Impact Assessment Conclusions

Ecological integrity

- Disturbance to benthic communities is negligible in relation to available area of similar habitat (Least Threatened).
- Recovery of benthic fauna in 2 – 5 years (short-term).
- Negligible loss of ecological integrity.

Economic efficiency

- Exclusion of large pelagic long-line in 500 m safety zone for three months per well.
- Limited job opportunities as drilling is a highly technical operation.
- Limited opportunities to provide support services (e.g. refuelling, vessel / gear repair, port dues, helicopter services, hire of local fishing vessels, etc.)
- Economically efficient, as no other parties would be significantly impacted.

Equity and social justice

- Project would not unfairly discriminate against any one party.
- Negative impacts are not unequally distributed.



It is the opinion of CCA in terms of the sustainability criteria described above, there is no reason why the project should not receive a positive decision.

Way forward in EIA / EMPr Addendum process

1. Compile Final EIR and update EMPr Addendum based on comments received.
2. Submit EMPr Addendum to PASA for decision-making.
3. Release Final EIR for a 30-day comment period.
4. Submit Final EIR, including any comments received from I&APs, to DEA for decision-making.
5. Distribute decisions.
6. Statutory appeal period.

