



**International Petroleum Industry
Environmental Conservation
Association**

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IPIECA in Profile

- Members are International Oil Companies and Associations
- Focus on key global environmental issues
- Small Secretariat based in London
- Working with IMO and others to improve oil spill contingency planning through the 'Global Initiative'

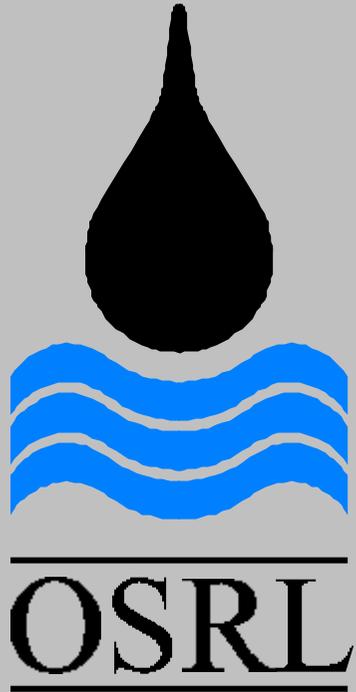
Oil Spill Preparedness & Response

Goal

Encourage effective and sustainable oil spill contingency planning processes around the world.

Activity

Work in partnership with IMO and others to enhance preparedness at the national / regional levels



Consequences of Oil Spills at Sea

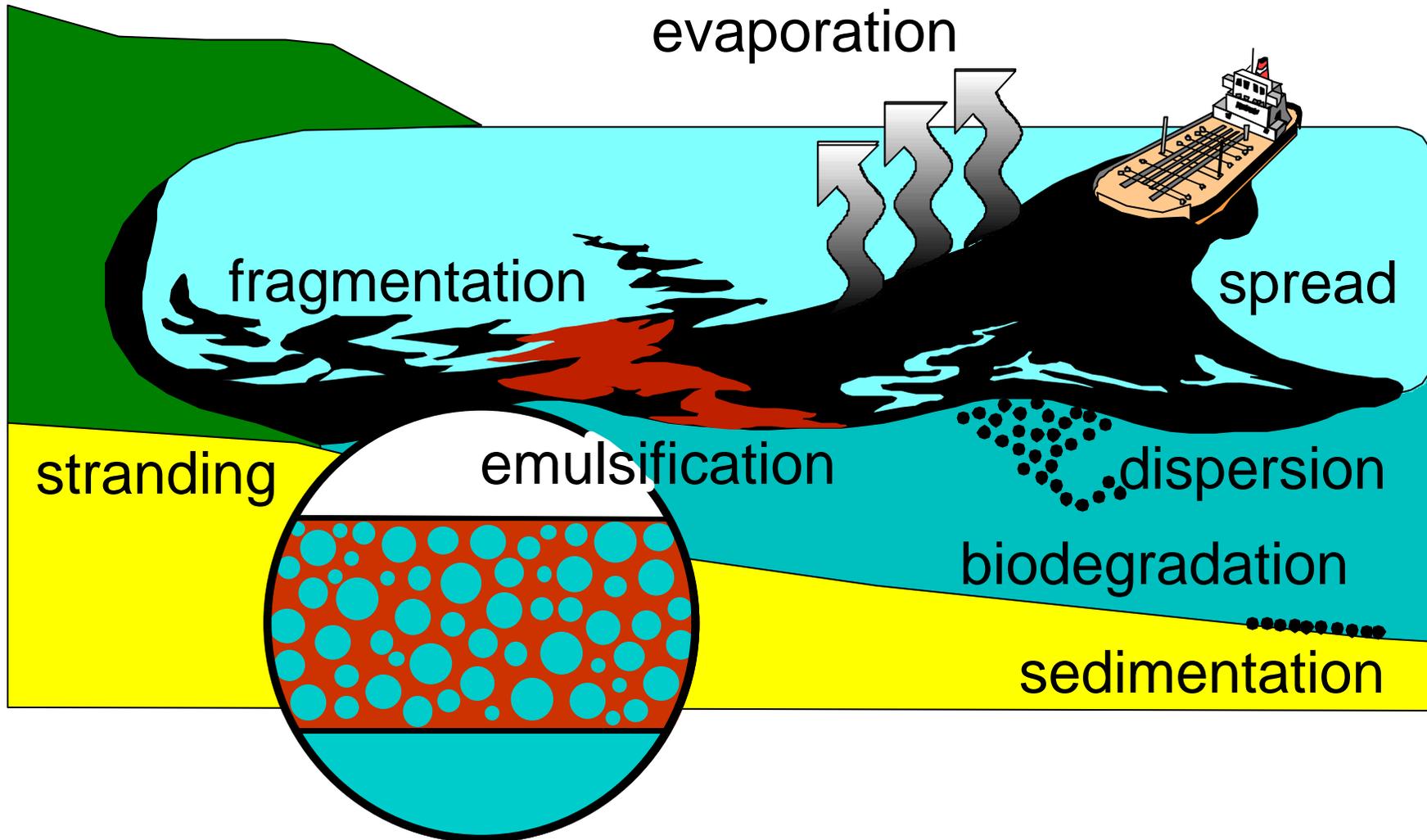


Properties of Oil

- Specific gravity / API: *density*
- Viscosity: *resistance to flow*
- Pour point: *below which oil does not flow*
- Volatility: *propensity to evaporate*
- Asphaltene: *propensity to emulsify*

Fate of Spilled Oil

Combined weathering processes



Sheen



Black oil

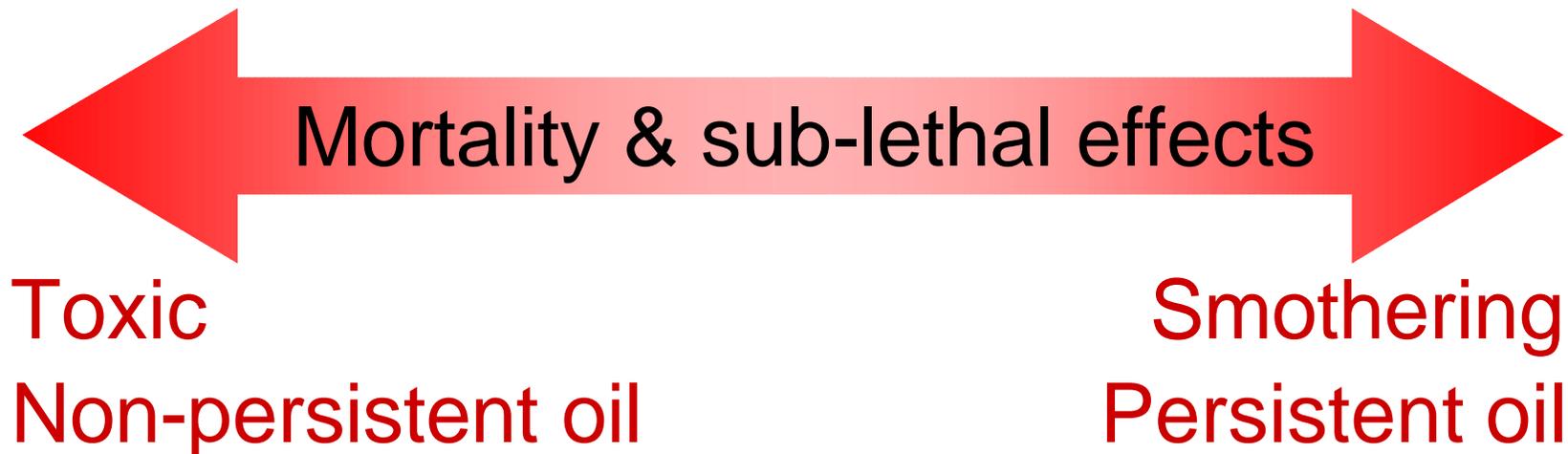


Emulsion



Oil as a Pollutant

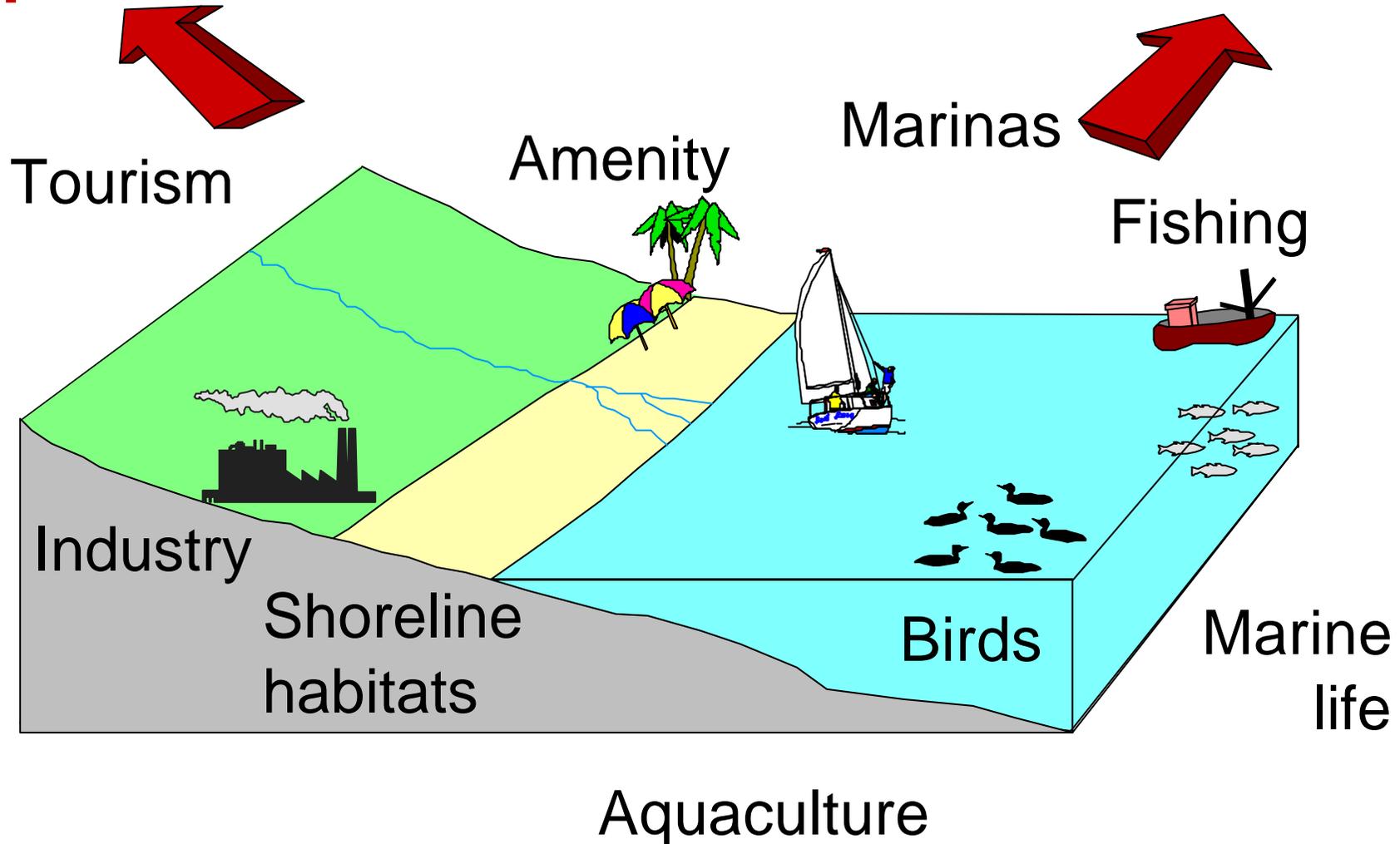
- Oil characteristics
 - complex
 - biodegradable
- Impacts
 - variety of factors (location, oil type / quantity, season and response effectiveness)



Environmental Considerations

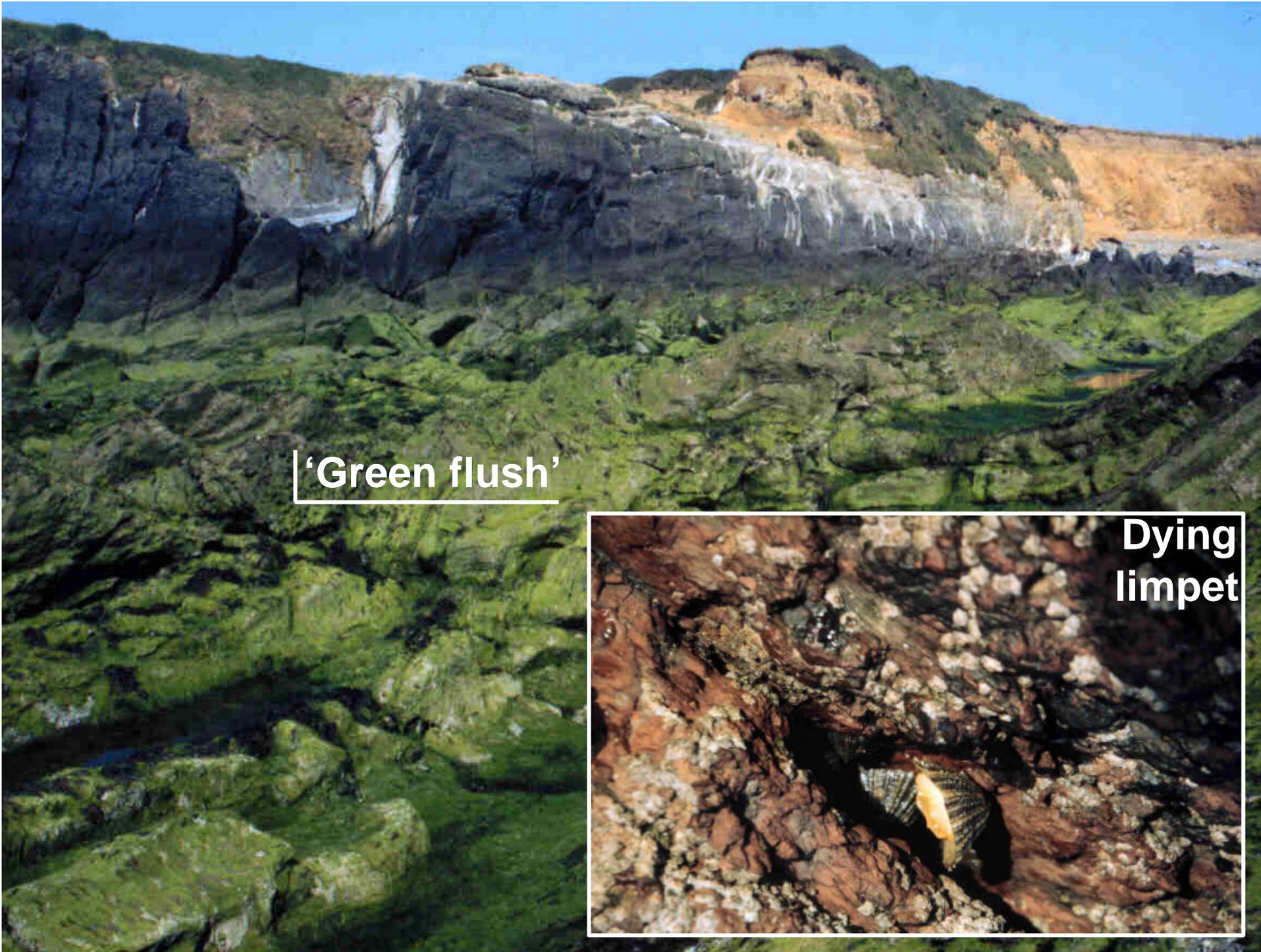
Ecological impacts

Media and Community issues



Impacts of Oil

- Ecological
 - birds, fisheries, shorelines etc...
- Amenity
 - tourism, marinas, watersports etc...
- Industry
 - fishing, aquaculture, water intakes etc...
- Planning element
 - identifying & prioritising resources at risk
 - sensitivity mapping



‘Green flush’

Dying
limpet







Fishing



Aquaculture



Marinas



Tourism



Industrial intakes

Crude monument to human arrogance

WITH 130,000 TONS OF CRUDE STILL ABOARD

Fight against time to save coast from tide of death

rare
Pollution threat
to the nation's
wildlife treasure

Pollution of destruction
black tide of destruction

Disaster averted

Tugs fight to stop slick from tanker polluting wilderness

SPILL

SHOWS

BRINK

BIRDS AND SEALS FACE BLACK DEATH

ONE HULL A SCANDAL

Playing Russian roulette with a natural paradise

WAL

THE COST

NEGLECT

SEA SAGA SINKS

SEA EMPRESS CASTS THE SHADOW OF CATASTROPHE OVER A NATURAL JEWEL

Into black farce

Typical media headlines during a major spill

Impacts and Issues

- ‘The environment’ can be very newsworthy and emotive
- Common perception that impacts will be
 - ‘devastating’
 - ‘catastrophic’
 - ‘disastrous’
- Ecological recovery does occur after spills
 - often quicker than the general perception
 - ranges from a few weeks to many years



Shoreline Types

decreasing energy



- Cliffs
- Rocks
- Pebble / cobble
- Sand
- Mud
- Saltmarsh

increasing vulnerability







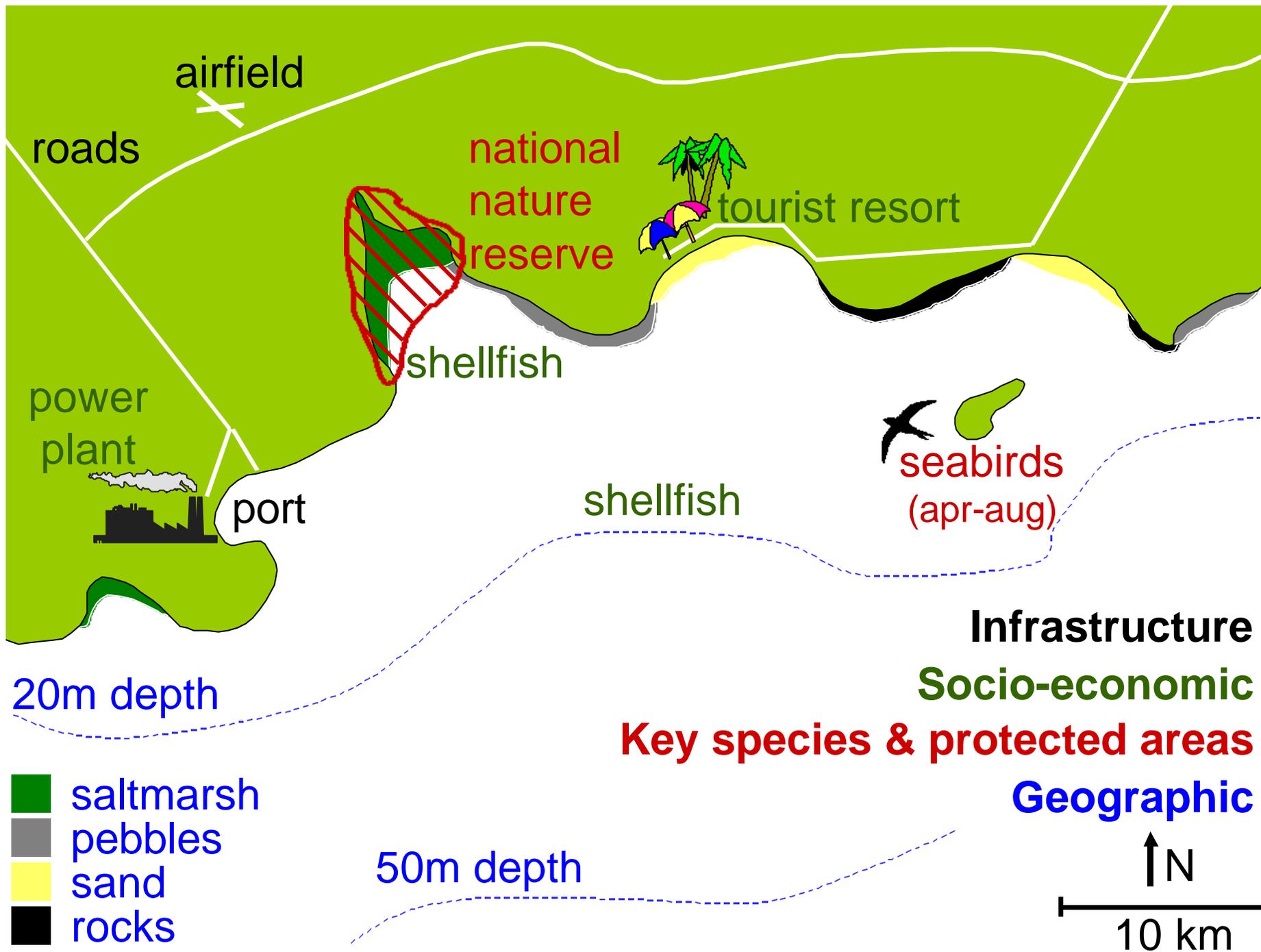






Net Environmental Benefit Analysis (NEBA)

- Strongly encouraged to use NEBA
- A science based approach
- Examines the overall implications of strategy choices
- Requires understanding and data about the area threatened
- Part of contingency planning



Black Sea Interactive Map Service



Legend

- Coastal and Political Boundaries
- Monk Seal
- Wild Cat
- European Otter
- Protected Areas (polygons)
- Wetlands
- Bathymetry
 - Less than 1500
 - 1500-3000
 - 3000
 - 4500
 - 6000 - 7500
 - 7500 - 9000
- Land Area

Legend

Zoom In