



RISCS PROJECT ANNUAL MEETING

Presentation for PAB
Perspectives on WP5 guidelines

Guideline structure



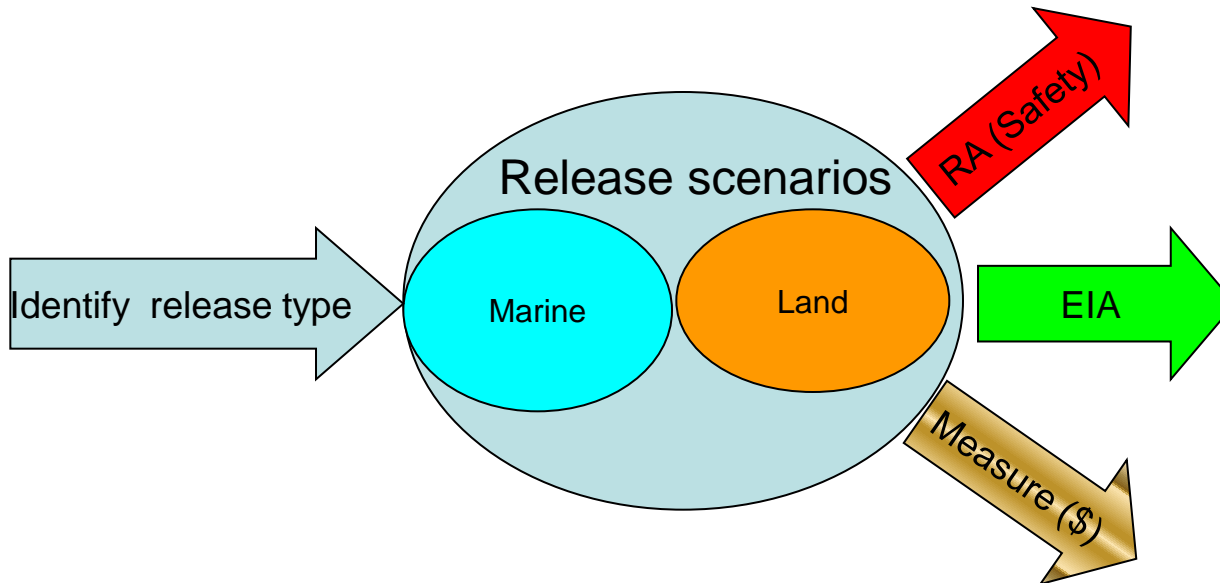
- Overall scope
- Order of sections
- Structure for impact assessment (Environment)
- Coverage of:-
 - Risk Assessment (Safety)
 - Leak quantification (Commercial)

Scope and Order



- Currently has a lot of background on CCS
- Covers:-
 - Impacts
 - Leakage scenarios
 - Remediation/mitigation
- Suggestions
 - Condense background – move parts to back.
 - Re-order chapters
 - – Leakage scenarios, impacts, mitigation
- Include section outlining EIA process

Structure

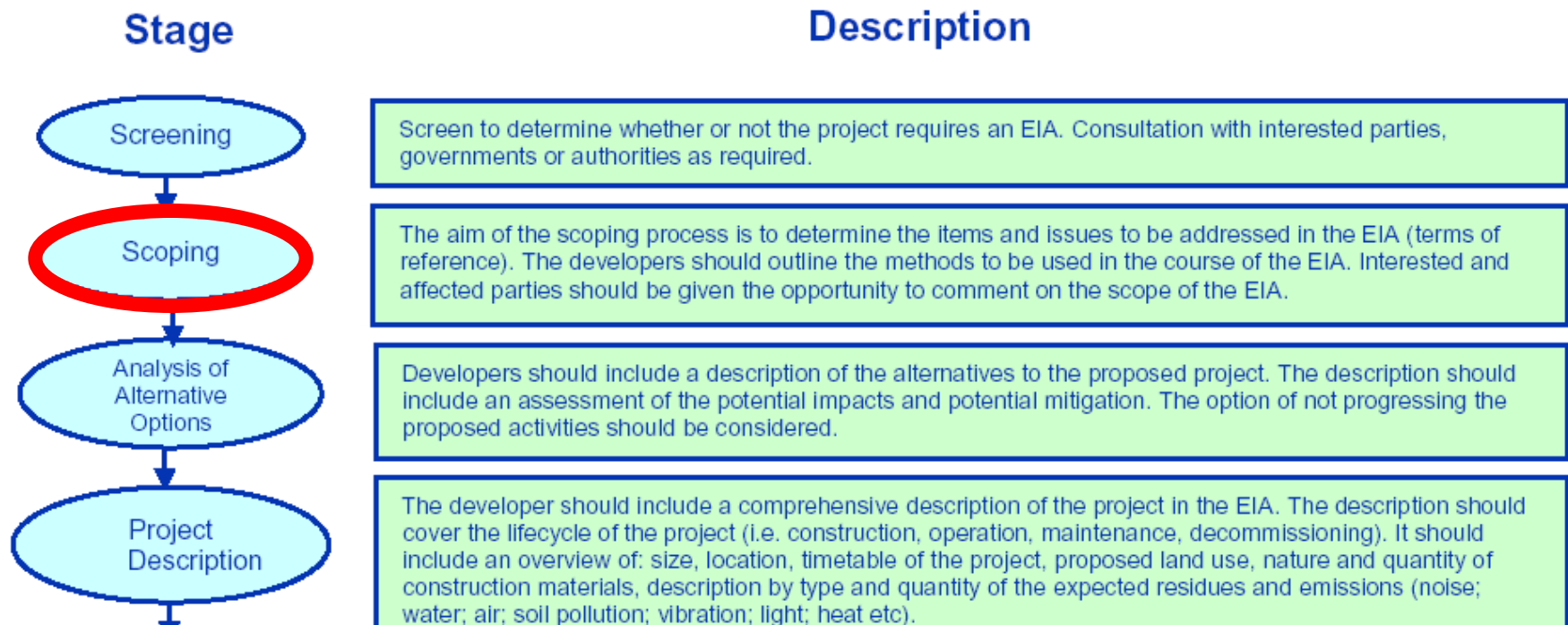


EIA probably the most complex area to deal with.

Key stages in EIA



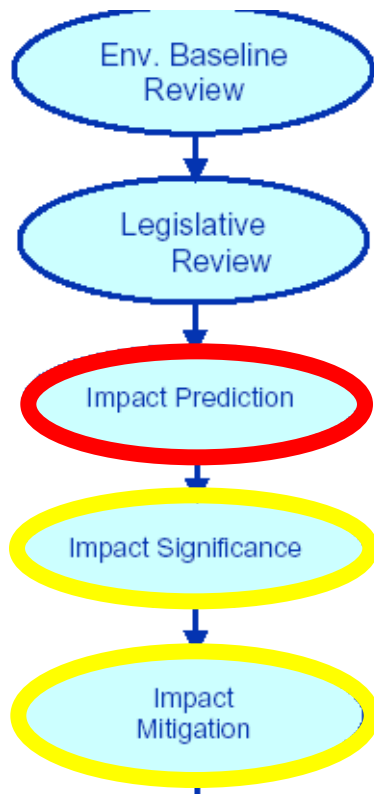
Figure 3.1: Best Practice Environmental Assessment Framework



MANAGING RISK

Extract from IEAGHG report 2007/1

Key stages in EIA



The objective of the baseline review is to describe the state of the environment as it is prior to commencement of project operations. The review should describe the flora & fauna; water (aquifers; water courses; shore lines; existing discharges); soil (geology; geomorphology; including seismic characteristics); air (quality; climatic factors); architectural, historic and cultural heritage.

Developers should include in the documentation an outline of the policy, legal and administrative framework within which the EIA is prepared. It should include all relevant legislation at a local, state/ territory, regional, national and international level that could affect the proposal. Also, development of a CCS site should not conflict with other legislation.

The impacts identified in the preceding stage should be quantified via qualitative, quantitative and semi-quantitative techniques. Developers should consider frequency, duration, magnitude, risk etc.

In determining the significance of activities, developers should consider the size of the project; location (near SSSI's); and the nature of the effects. Impacts should be screened and prioritised accordingly.

Developers should provide a description of the measures which will be taken to avoid; reduce; or remedy significant adverse effects. The description should include an overview of the predicted or expected cost effectiveness of the measures; the statutory or policy basis of the measures; cost of mitigation.



MANAGING RISK

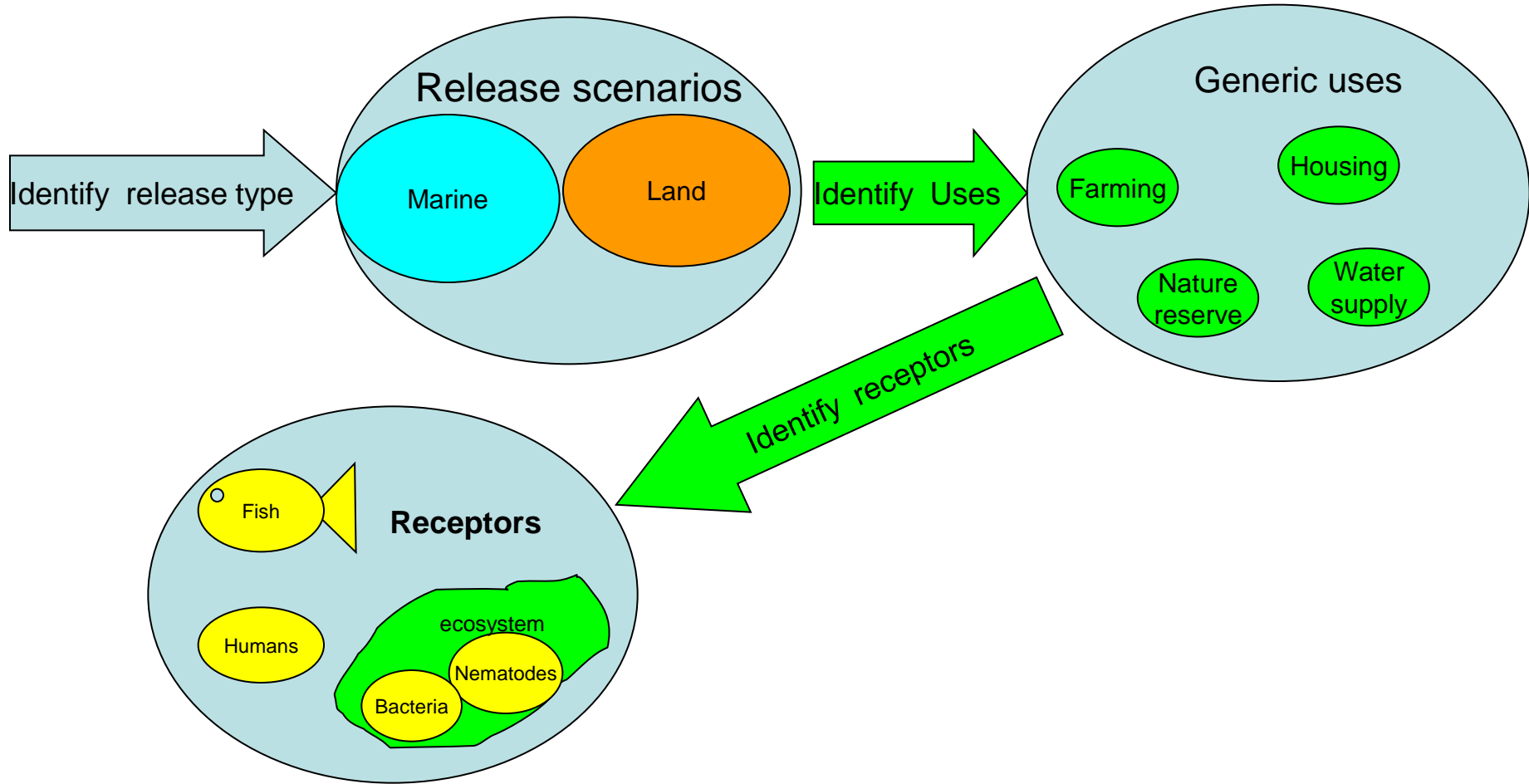
Extract from IEAGHG report 2007/1

IA structure



- Identifying receptors should be a key
- However first step is identifying leak scenarios
- Second step should be identifying “usages” which might be affected
- Then the likely receptors become obvious

EIA initial work flow

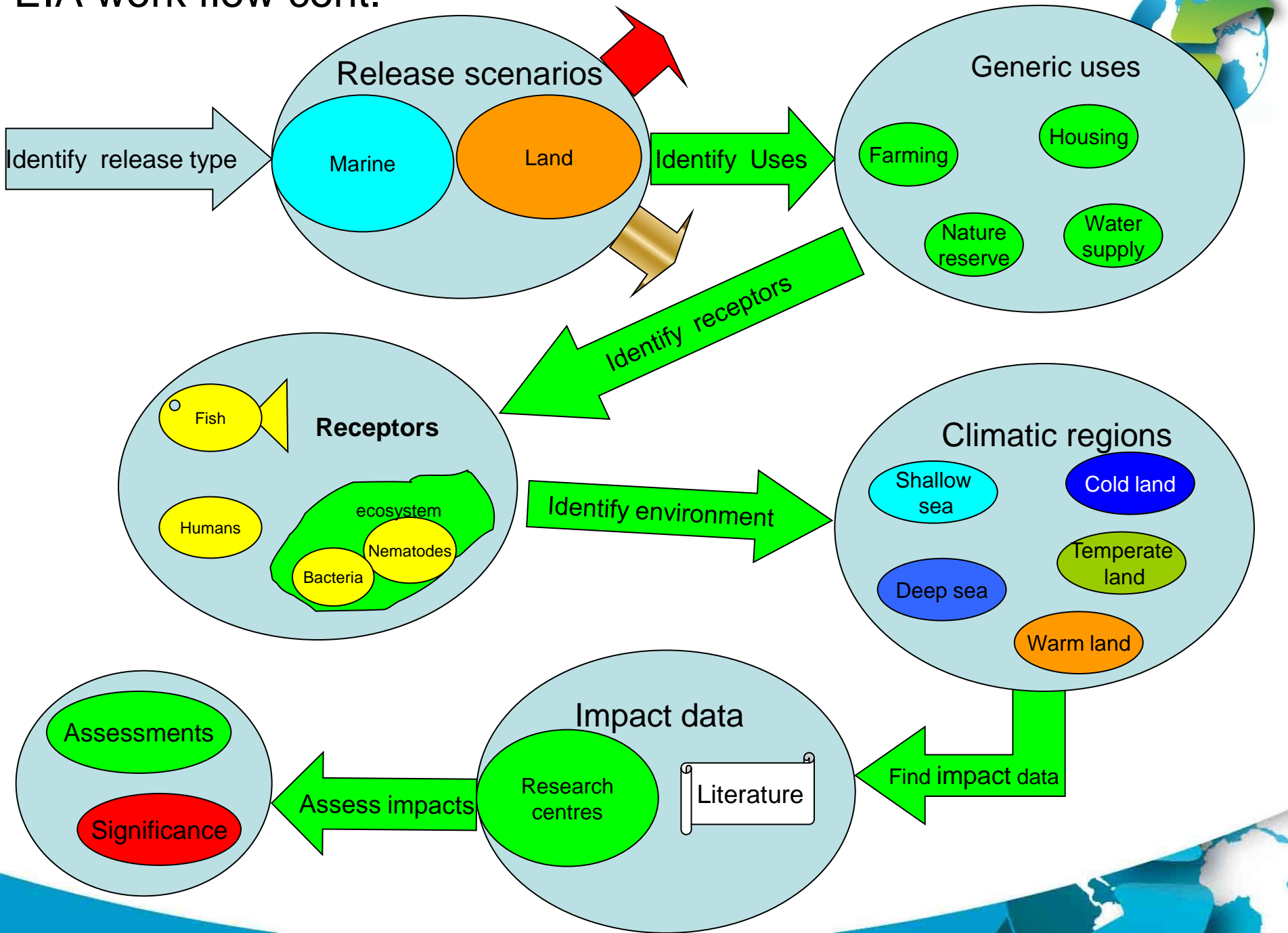


Role of “environments”



- Not fully clear
- Is an additional sorting factor
- May modify receptor response
- Suggest if retained it is next step in process

EIA work flow cont.



Receptor definition guidance



- Level of detail?
- High level may be insufficient
- Species v ecosystems? – Both needed
- Suggest hierarchical listings
- Suggest link to “usages”

Links to impact information



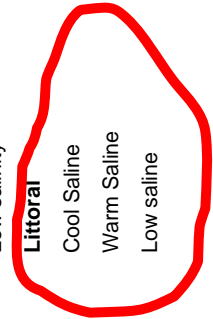
- Critical for EIA development to have sources of impact data.
- Guidance should point to data sources
- Should include literature as well as research centres
- May be easier to deliver in electronic form
- Uncertain of “environment” definition value
- Should include Littoral environments



DATA SOURCES ON RECEPTORS

ENVIRONMENTS

	Wild birds	Migrating birds	Breeding grounds	Wild animals	Domestic animals	Cultivated crops	Gardens	Trees	Fish	Marine mammals	Soil	Forests	Grassland	Swamp	Salterns	Hedgerows	People	Waters	Lower organisms	Micro-organisms	Marine sediments	Terrestrial	Maritime temperate	Continental	Mediterranean	Urban	Marine	Cool temperature deep	Cool temperate shallow	Warm Shallow	Low salinity	Littoral	Cool Saline	Warm Saline	Low saline	
Research centres																																				
ASGARD																																				
Florina																																				
Grimsrud Farm																																				
San Vittorio, Latera																																				
Panarea																																				
Montmiral																																				
S North Sea Dutch Coast																																				
English Channel																																				
Norwegian fjjord																																				
Gulf of Trieste																																				
Definitive Literature																																				
Safety data sheet																																				



Conclusions



- A good start has been made
- Structure needs more careful mapping
- Consider reality of practical EIA preparation
- Address how to update impact information



Thankyou for your attention

