

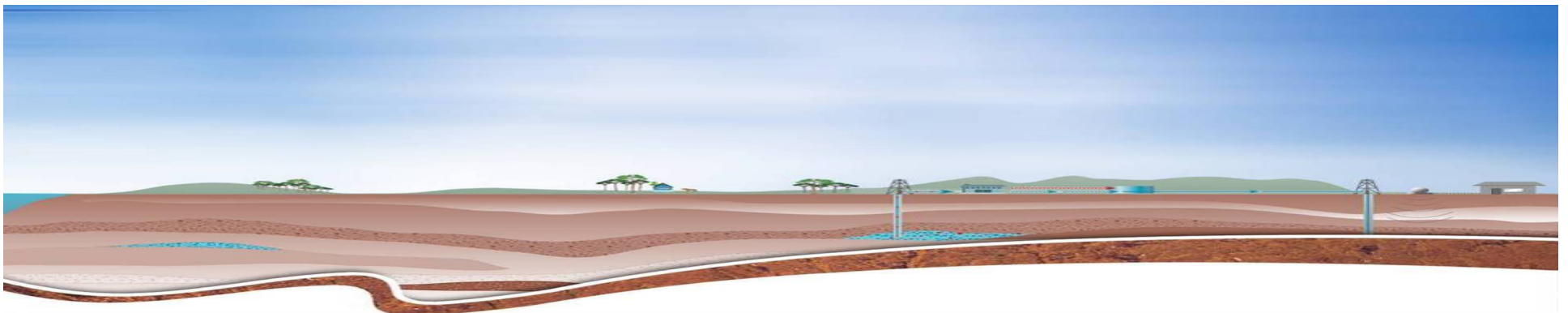


Developing Australia's Legislation and Regulatory Guidelines for CCS

Martin Squire

**Manager of Carbon Capture and Storage Section,
Resources Division**

Department of Industry, Tourism and Resources



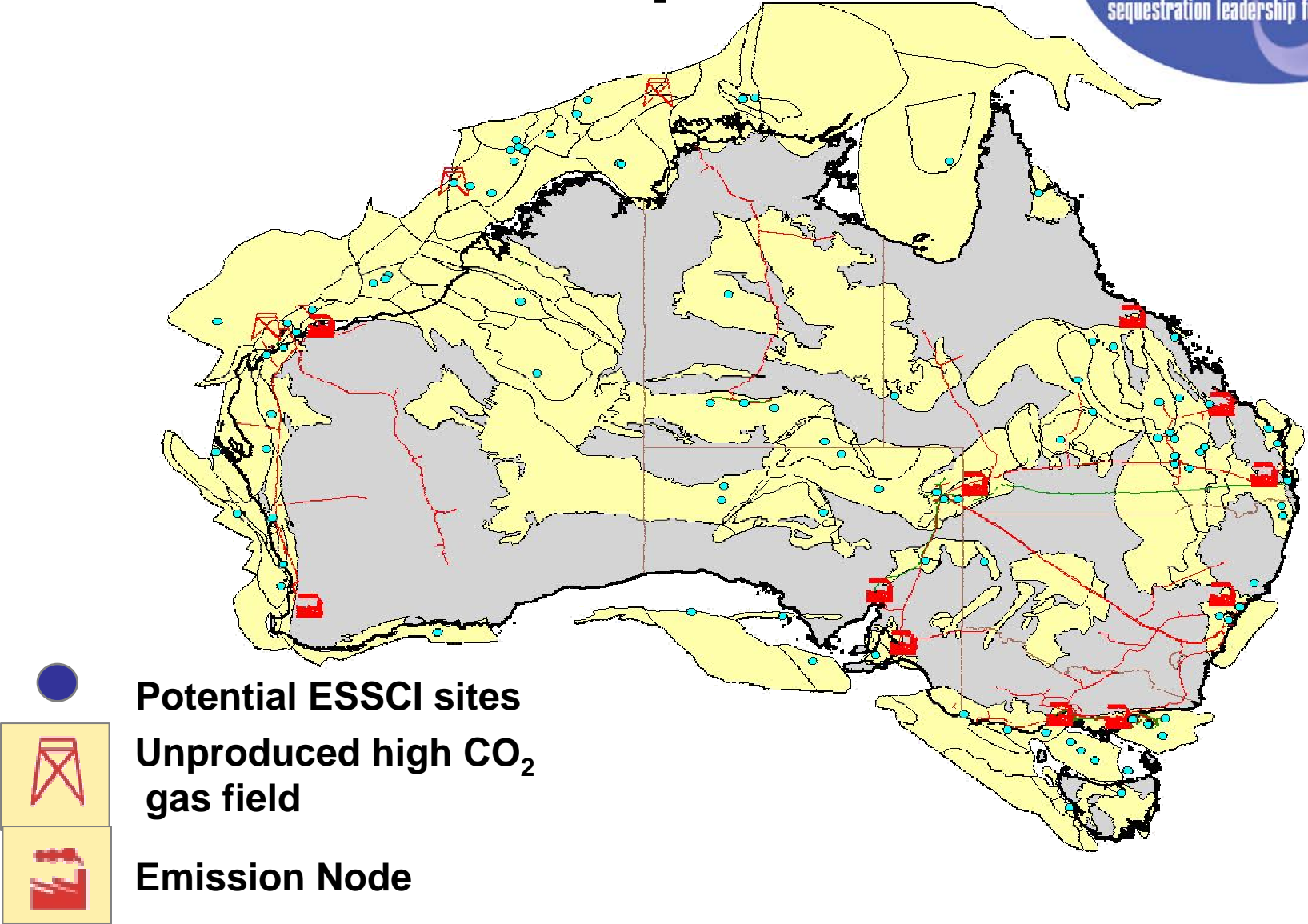
Background



- Australia has a federated system of government
- Australian Government has policy responsibility for offshore waters
3 nautical miles from the coastline
- States and Territories are responsible for day to day regulation of petroleum offshore activities
- Current process for petroleum activities within Commonwealth waters had been mirrored in State and Territory jurisdictions
- Much of Australia's potential storage capacity is in offshore sedimentary basins



Australian CCS potential



Potential ESSCI sites



Unproduced high CO₂ gas field



Emission Node

Outline



- Key considerations in regulatory framework
- Establishing principles for regulation
- Developing the framework for a legislative model
 - A major challenge in developing the framework has been the management of interaction with the petroleum industry
- Filling in the details - guidelines and regulations

Key Considerations in Regulatory Framework



- Deliver a consistent transparent and flexible basis for regulation of CO₂ carbon capture and storage projects
- Potential to deliver investment certainty for carbon capture and storage projects
- Public confidence that CO₂ will be safely and effectively stored
- Public confidence that natural resource management, environmental impacts, health and safety issues addressed
- Increased research development and transfer of technology
- Consistency in the application and regulation of CO₂ carbon capture and storage technologies and processes

Regulatory Guiding Principles for CCS



- In November 2005, Ministers endorsed Regulatory Guiding Principles for Carbon Dioxide Capture and Geological Storage in Australia.
- These principles served to highlight key considerations of any CCS regulatory regime
 - Assessment and Approvals
 - Access and Property Rights
 - Transportation
 - Monitoring and Verification
 - Post Closure Responsibilities
 - Financial Issues

Legislative Model



- ***Offshore Petroleum Act 2006*** chosen due to:
 - Similarity between transportation, injection and storage of CO₂ and petroleum industry
 - Long standing and effective regulatory regime for offshore petroleum activity
 - Need to reflect co-existence and determinable rights between petroleum and CCS industry
 - National legislation to drive consistency across jurisdictions
- **Fundamentally mirrors existing petroleum regime**
 - Acreage Release Process
 - CCS Exploration Permit
 - CCS Retention Lease
 - CCS Injection Licence

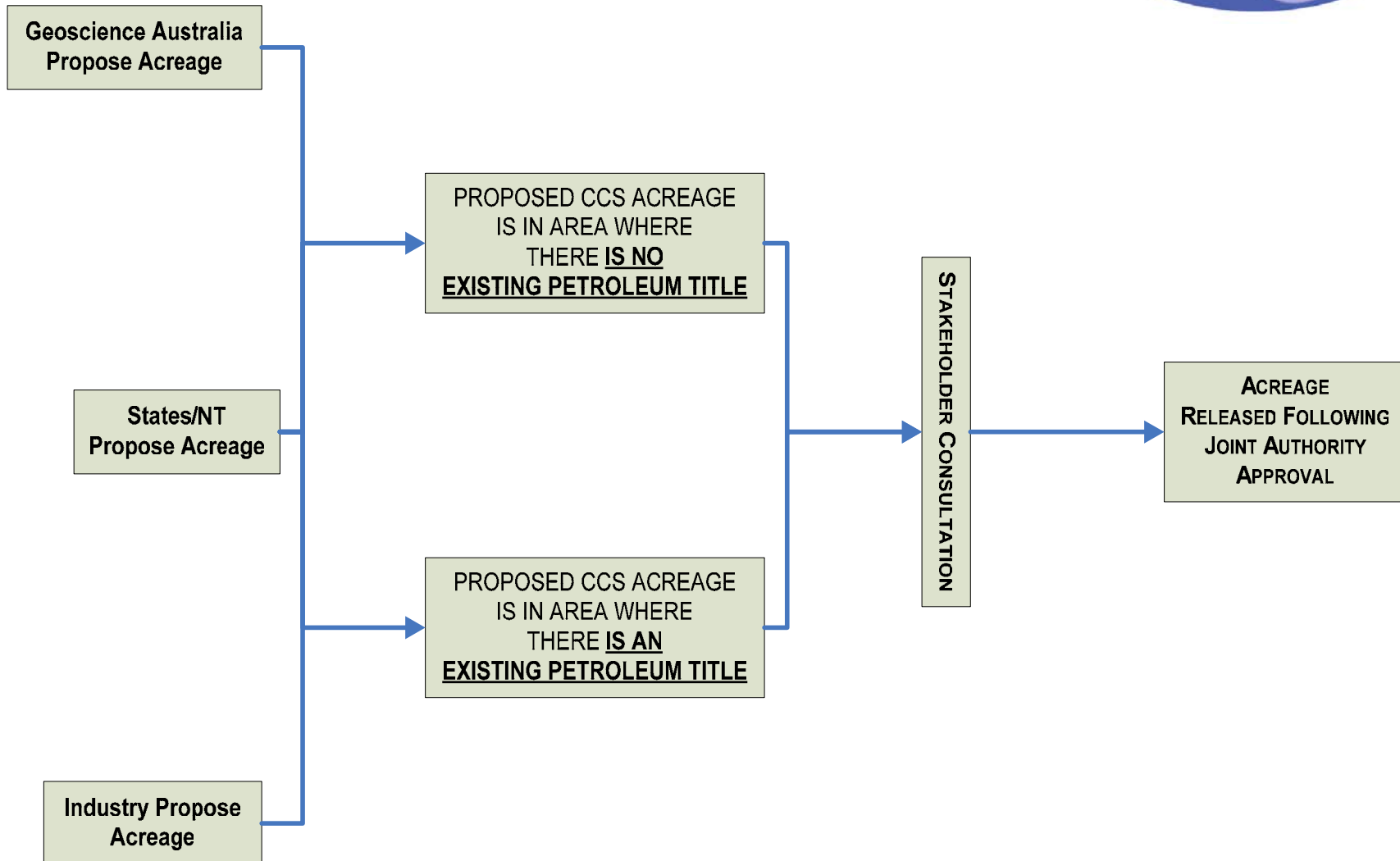


Co-existence of Petroleum & CCS activities



- Many attractive storage sites may be located in petroleum provinces
- Fundamental to any CCS acreage release will be interaction with petroleum activities
- International experience demonstrates CCS and petroleum activities are co-existing
- Existing commercial CCS operations are within the “footprint” of oil and gas field production, with injection into deeper or shallower horizons, or down-dip of petroleum accumulation

Acreage release process



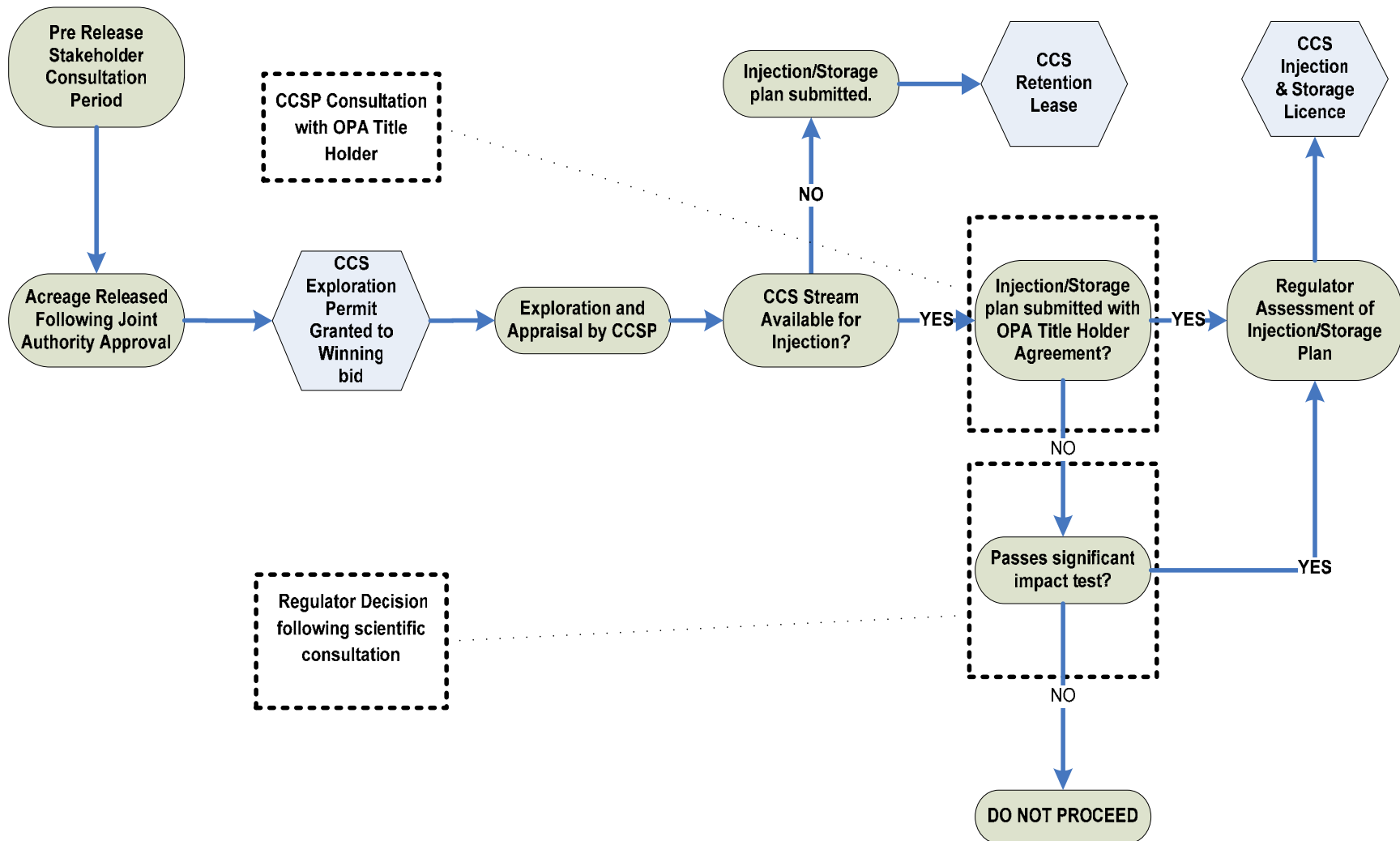
Protection of Existing Petroleum Rights (*pre-amendment*)



- Extensive consultation process prior to release of offshore areas
- Approval of CCS activities subject to 'no significant impact test'
- Provision for just terms compensation



Pre-Amendment Petroleum Title Area



No Significant Impact Test



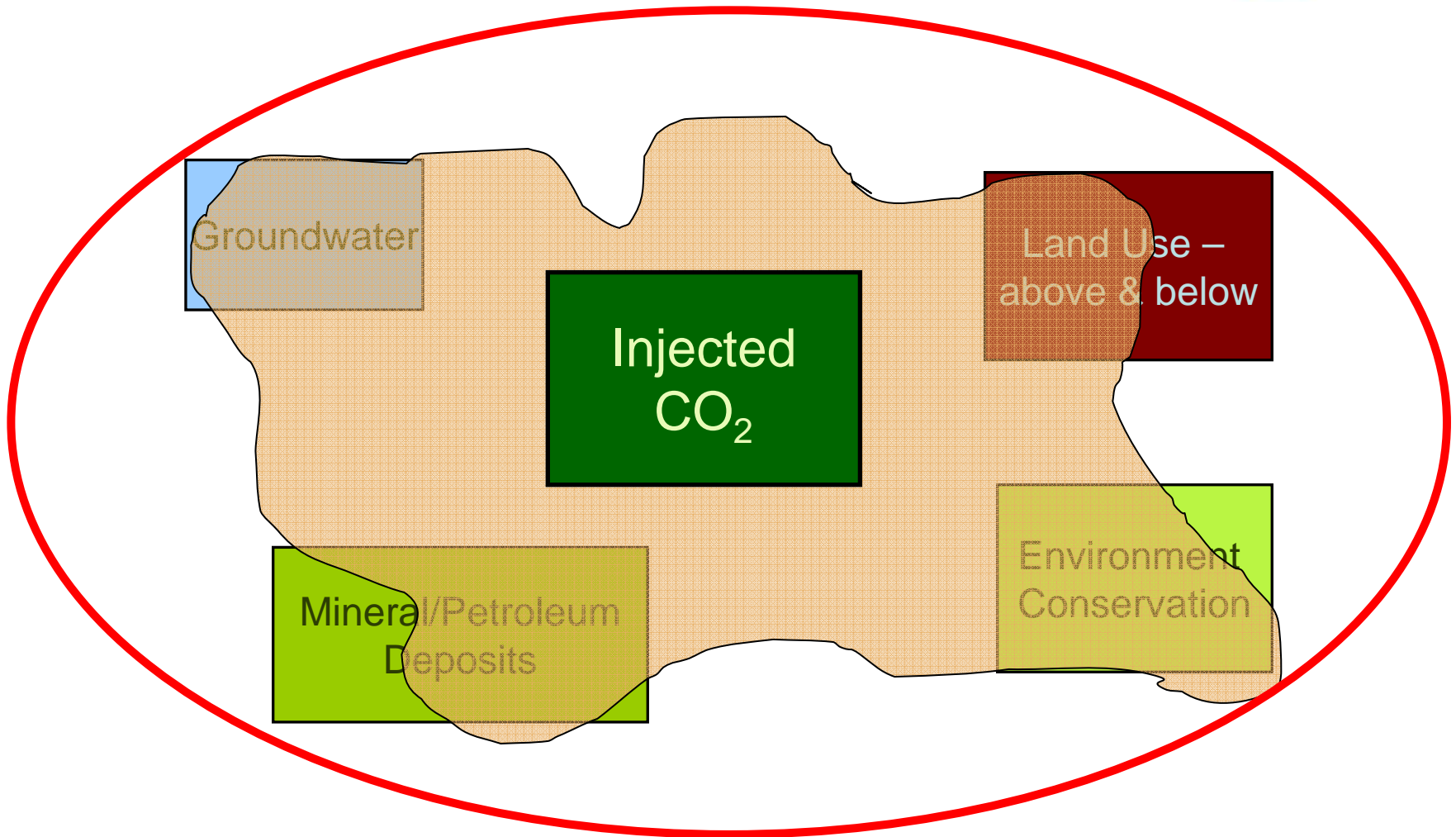
- *No Significant Impact* will be a pre-condition for approval to undertake an activity under any title
- Many geotechnical aspects will be drawn upon in making an assessment
- Undiscovered hydrocarbon potential will be one of the matters considered when deciding on an application for an injection licence
- No significant impact will need to be considered on a case-by-case basis

Post Amendment Title



- Post-amendment titles are petroleum exploration permits granted after the OPA CCS amendments and subsequent titles in the same series
- However, once granted an injection or production licence will have precedence and the competing activity will be subject to the 'no significant impact test'
- Where the two activities cannot coexist simultaneously the regulator will apply a 'public interest test'

Need to use Catchment Area Management



Key future work to underpin the legislation



- Develop regulation to support the legislative framework, including
 - Guidelines and regulations to ensure that sites chosen for CCS are safe and effective
 - Guidelines and regulations to cover the operational phase
 - Regulations for monitoring and verification
- Building public confidence
 - Must show that CO₂ is safely and effectively stored underground and is not leaking out of the storage formation or into the atmosphere

Current status and next steps



- The legislation is due to be introduced into Parliament in the near future, after consultation with stakeholders on an exposure draft
- The other major task is to develop the guidelines and regulations to underpin the regulation. This process has just commenced.



Timeline



Date	Item	Outcomes
September 2003	To progress the issue of regulation for possible future CCS projects, the Ministerial Council on Mineral and Petroleum Resources (MCMPR) established a Regulatory Working Group	The Carbon Dioxide Geosequestration Regulatory Working Group is created
July 2004	A set of draft regulatory guiding principles for CCS is developed by the Regulatory Working Group and presented to MCMPR Ministers for consideration.	It was determined that a regulation impact statement (RIS) was required and broader consultation was also deemed necessary.
December 2004	A broader CCS Stakeholder Group (CCSSG) was established in December 2004 to provide specific expertise to the Regulatory Working Group.	The CCSSG considered legal, technical and financial advice commissioned by MCMPR, reviewed COAG RIS submissions and considered other comments received to revise the principles and RIS
June 2005	A Final Report on CCS Regulation was submitted to MCMPR to be considered.	Australian Regulatory Guiding Principles endorsed in November 2005
October 2006	Recommendations on the aspects of a CCS regulatory regime to MCMPR	Ministerial Council endorsement of proposed amendment of the Off-shore Petroleum Act to incorporate CCS
December 2006	Ministers received recommendations in December 2006	Ministers approved the legislative framework for CCS
May 2007	Finalisation of the Exposure Draft for CCS legislation	Draft legislation ready for stakeholder consultation phase
May-June 2007	Stakeholder consultation on draft legislation	Identification of stakeholder issues and concerns in legislative framework.
3rd/4th Quarter 2007	Introduction of Bill in Parliament	Establishment of legislation
2008	Regulatory regime established.	Release of CCS acreage and granting of exploration permits.

Conclusion



- I hope that this quick guide gives you some appreciation of where we are up to and where we are trying to go.
- I would be happy to try and answer any questions you have.

Martin.squire@industry.gov.au

THANKYOU