



Santos

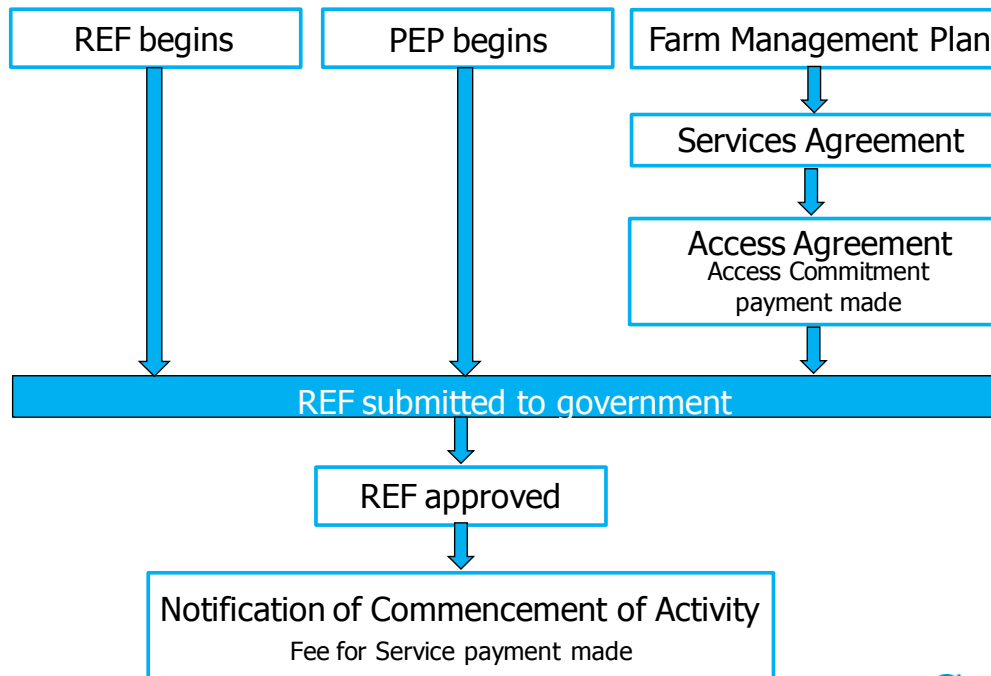
Review of Environmental Factors

Presentation – Scone – September 25, 2012

Ann Stewart

Review of Environmental Factors

Activity and Compensation Process



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Santos
We have the energy.

Review of Environmental Factors (REF)

A Review of Environmental Factors is an ecological assessment of a location and includes mitigation measures to ensure the ecology at the location is not impacted by Santos' activities.

- A REF is required for a Part 5 approval under the Environmental Planning & Assessment Act administered by the Department of Resource & Energy (DRE)
- Part 5 REF approval is required for exploration and appraisal activities in New South Wales
- Part 5 REF is lodged with DRE and reviewed and signed off by Department of Planning, New South Wales Office of Water, Office of Environment & Climate Change and ORE
- Department of Planning - that the approval is compliant with Part 5 and not Part 4
- New South Wales Office of Water - with Water Act compliance - water bore licences
- Office of Environment & Climate Change - Cultural & European Heritage compliance and Native Title claims

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Santos' Responsibilities

Step	Action
1. Activity description	Describe all down hole technical activities and surface facilities to be constructed (down hole includes well integrity design and surface facilities include water storage for a pilot test)
2. Scope of activities	Detail of all the activities (including any testing) , water storage design, farm management community consultation, reporting to Regulators to define the full scope of the activities
3. Formal scout	A formal scout is a site visit of all the relevant Santos experts, and the landholder to assess the location of the hole and surface facilities, to ensure that the activities will not impact the environment and the farming activities on the land (i.e. assess koala habitat, over land water flow, noise) The findings of the scout and any mitigation required is included in the REF description
4. Groundwater monitoring	Santos if conducting a pilot test install s either a shallow aquifer monitoring bore or a deep aquifer monitoring bore at a location (hydrogeology of the area) . Formal scout helps to identify location on the ground. Ground water model forms basis for design
5. Access	Access and compensation is agreed for access to scout. Access and compensation now includes a Farm Management Plan which details co-existence of Santos and the farmer which is included in the REF design
6. Cultural Heritage	An on ground review of the location is undertaken during the scout to identify any cultural heritage items. A report of this activity forms part of the REF
7. Communications plan	Under the new NSW Strategic Land Use Policy, as well as new terms contained within an exploration license, a communications strategy for an activity must be developed in conjunction with the landholder. This strategy is to be regarded as an information document for stakeholders. This strategy must be agreed with the landholder and included in the REF to be lodged with the Regulator for approval.

Santos' Responsibilities

Step	Action
8. Noise mitigation	Santos has a policy where it will not locate wells or facilities within 1km of a residence. The legislation requires a distance of 750 metres from an occupied residence. Santos also offers noise monitoring at a location if required by a resident.
9. Review of REF by landholder and Community Consultation Committee	The final draft of the REF is to be reviewed by the concerned landholder and Community Consultation Committee prior to lodgement
10. NSW Regulator	A meeting is held with the Regulator prior to lodgment of the REF to scope the activities planned and seek any input into the draft REF
11. REF lodged and approval received	REF lodged with Department of Resource & Energy who has a statutory time of 2 months to review and approve the REF
13. License to lift water during the pilot test	Depending on the status of the Water Sharing Plans in the area it may be necessary to obtain a licence to lift water
14. Ice-breaker	This is a meeting where all parties are invited to a meeting to discuss coordinating activities on the land during the pilot well program

What to look for in a REF

Element	Information
1. Water for use in drilling	Water may be used during the operations by obtaining water from a licensed Council or a landholder who has a licensed bore which is licensed for other than stock and domestic purposes
2. Safety Management	Santos is required to lodge a Safety Management Plan and Emergency Response Plan with the regulator.
3. Ecological assessment	The ecological scout is used to identify koala habitat, endangered species and water sources. Information obtained on the land can be shared with the landholder. Santos must have in place koala habitat management plans, mitigation measures to avoid endangered species and mitigation to avoid water sources and overland flow.
4. Chemical use	The REF must contain information on chemicals used at the location, together with plans as to how drilling cuttings etc. will be removed.
5. Noise and light	Noise assessment and/or mitigation measures must be described in the REF. If a landholder wishes to have noise and/or light monitoring the REF should address this. An independent expert will conduct noise and light assessment.
6. Personal information	Any information collected by Santos of a personal nature with regard to the landholder will be managed in accordance with the Privacy Act
7. Communications plan	A plan particular to the location should be detailed in the REF