



**Australian Government**  
**Department of the Environment**

# **Independent review of the ‘water trigger’ legislation**

Issues paper - information on the review process and  
guide for making submissions to the review

30 November 2015



## **DISCLAIMER**

The views and opinions expressed in this publication are those of the authors and do not necessarily reflect those of the Australian Government or the Minister for the Environment.

## **COPYRIGHT**

© Copyright Commonwealth of Australia, 2015.



'Independent review of the 'water trigger' legislation – issues paper' is licensed by the Commonwealth of Australia for use under a Creative Commons Attribution 4.0 Australia licence with the exception of the Coat of Arms of the Commonwealth of Australia, the logo of the agency responsible for publishing the report, content supplied by third parties, and any images depicting people. For licence conditions see:  
<https://creativecommons.org/licenses/by/4.0/>

This report should be attributed as 'Independent review of the 'water trigger' legislation – issues paper, Commonwealth of Australia 2015'.

The Commonwealth of Australia has made all reasonable efforts to identify content supplied by third parties using the following format '© Copyright, [name of third party] '.

Executive summary .....	2
Terms of Reference for the review.....	2
1. The water trigger in brief.....	3
2. The review of the water trigger .....	4
3. History of the water trigger .....	5
4. Other matters in the EPBC Amendment Act 2013 .....	6
5. Implementation of the water trigger .....	8
6. The review process .....	11
7. Discussion of issues covered by the review terms of reference .....	13
8. How to contribute to the review .....	16
9. References.....	18
Appendix 1 – Coal seam gas and coal mining development and regulation in Australia .....	20
Appendix 2 – Evaluation framework .....	23

## EXECUTIVE SUMMARY

In 2013, an amendment was passed to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This amendment is known as the 'water trigger' and requires the Australian Government to assess and approve coal seam gas and large coal mining developments that are likely to have a significant impact on water resources. This amendment is currently being reviewed and your views are being sought.

This Issues Paper provides background information about the water trigger legislation and the EPBC Act. A summary of the key features of the water trigger is given in the first chapter,

The review process is discussed in the second chapter, including the role of the independent reviewer and the Department of the Environment, how public views will be considered, and timelines for the review.

The Terms of Reference define the scope and focus of the review, and are discussed in detail in the third chapter including the role that the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC) has in providing scientific advice to the Australian Government regulator. While the water trigger legislation did not establish the IESC, the significant statutory role of the IESC in the administration of the water trigger is recognised. Questions about the appropriateness, effectiveness and efficiency of the legislation arise from the Terms of Reference.

Stakeholder submissions are an important part of the review. The fourth chapter describes how to make a submission to the review. To do so, a user-friendly online consultation has been developed which asks questions reflecting those presented in this paper, as well as allowing free-text responses. The online system makes it easy to save and submit your submission as well as ensuring you receive notification when the review report is available following its tabling in the Australian Parliament.

A list of references is given at the end of the paper, with an appendices on coal seam gas and coal mining regulation in Australia, and the evaluation framework for the review.

### TERMS OF REFERENCE FOR THE REVIEW

1. Examine the appropriateness of the regulation including whether it is necessary and well targeted
2. Examine the effectiveness of the regulation in protecting water resources from the impacts of coal seam gas and large coal mining projects, including the role and scope of work ascribed to the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC)
3. Identify any opportunities to improve the effectiveness of the regulation
4. Examine the efficiency of the regulation in protecting water resources from the impacts of coal seam gas and large coal mining projects
5. Identify any opportunities to reduce or simplify the regulation whilst maintaining its effectiveness
6. Identify any recommended appropriate future review points of the regulation.

## **1. THE WATER TRIGGER IN BRIEF**

### **The EPBC Act**

The EPBC Act is the Australian Government's central environmental legislation. This Act provides the legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places, defined in the Act as 'matters of national environmental significance'.<sup>1</sup> Before the water trigger was introduced in 2013, the Australian Government Minister for the Environment could only consider likely impacts of coal seam gas and large coal mining on existing matters of national environmental significance in the EPBC Act, such as threatened species and ecological communities.

### **What is the water trigger?**

The 'water trigger' is the common name for a legal requirement in national environmental law that 'triggers' a requirement for the Minister to assess and approve coal seam gas and large coal mining developments that will have, or are likely to have a significant impact on a water resource. The legislation that established the water trigger is the *Environment Protection and Biodiversity Conservation Amendment Act* (EPBC Amendment Act) 2013. This amendment act added to an existing list of matters of national environmental significance in the EPBC Act.

The outcome of the EPBC Amendment Act is that impacts of coal seam gas and large coal mining developments on water resources are now assessed by the Australian Government. The Australian Government works in concert with state and territory governments, which have primary responsibility for water resources and regulating environmental impacts associated with the resource sector.

The legislation includes civil penalty and offence provisions for developments that occur without an approval, or exemption from obtaining an approval. Transitional provisions were introduced to minimise disruption to the assessment of existing projects, while meeting the objectives of the amendments to provide robust assessment of potential impacts on water resources from coal seam gas and large coal mining developments.

### **Why was the water trigger introduced?**

The legislation was introduced in response to community concerns at a time when coal seam gas development was relatively new. The legislation also addressed an anomaly that arose in the use of scientific advice in assessing and approving developments, which is described in Section 3.

---

<sup>1</sup> The nine matters of national environmental significance protected under the EPBC Act are world heritage properties, national heritage places, wetlands of international importance, listed threatened species and ecological communities, migratory species, Commonwealth marine areas, the Great Barrier Reef Marine Park, nuclear actions, and a water resource in relation to coal seam gas development and large coal mining development.

## **2. THE REVIEW OF THE WATER TRIGGER**

### **Why is the legislation being reviewed?**

The EPBC Amendment Act 2013 (section 25) requires an independent review to be undertaken of the operation of the legislation.

To enable the legislation to be implemented swiftly, the then Prime Minister granted an exemption from the normal requirement of preparing a Regulation Impact Statement (which assesses the burden of regulation compared to the benefits). The review will also fulfil an Office of Best Practice Regulation requirement for a Post Implementation Review, which is required when a Regulation Impact Statement is not prepared at the time the legislation is introduced.

The review will seek input on whether the water trigger legislation has been appropriate, effective and efficient in protecting water resources from the impacts of coal seam gas and large coal mining developments.

### **How can I provide input to the review?**

Your views and submissions to this review are welcome. Section 4 of this Issues Paper provides information on making a submission, and how this information will be considered.

The review is being undertaken by an independent reviewer, Mr Stephen Hunter, on behalf of the Australian Government. Mr Hunter has extensive and relevant experience in public policy analysis and evaluation especially in the fields of agriculture, environment and natural resource management. The request for written submissions to the review opens on Monday 30 November 2015 and will close on Friday 29 January 2016. A report presenting the findings of the review will be provided to Parliament and will be published on the Department of the Environment website.

Participating in an online consultation to express your views is strongly preferred to better manage the review process and allow timely analysis of submissions. However, submissions sent by email and post will also be accepted. Online submission is simple and quick and enables contributors to be kept updated as the review progresses.

You can have your say by visiting the online consultation site for the review:

<https://environment.au.citizenspace.com/environment-standard-division/wtreview>

The Terms of Reference for the review have been approved by the Minister. The review is an opportunity for all interested parties to provide input that will assist in the evaluation of the legislation in terms of its appropriateness, effectiveness and efficiency.

Submissions will be used to inform the review report as described in the Evaluation Framework at Appendix 2. The framework identifies a list of questions and information of importance to the review, with some questions focussed on particular interest groups.

### **Regulatory burden measurement**

Information that can substantiate costs and other burdens on those affected by the water trigger will also help in measuring the regulatory burden as required by the Office of Best



Practice Regulation.<sup>2</sup> In addition, any evidence regarding changes in environmental outcomes as a result of the legislation would also be helpful.

The regulatory burden must specifically relate to the requirements of the water trigger legislation and must be carefully distinguished from other regulatory requirements, including requirements of the EPBC Act related to other matters of associated national environmental significance and only requirements of state and territory legislation and processes.

### **Limits to matters that can be considered by the review**

The Terms of Reference are focussed on the performance of the legislation in the form it was passed by the Australian Parliament. Many issues in relation to coal seam gas and large coal mine development are known to be of concern to the community, including land access, non-water related environmental impacts, occupational safety and public health. However, these matters are responsibilities of state and territory governments and are therefore outside the scope of the water trigger and this review. An explanation of the division of regulatory responsibilities between the Australian Government and state and territory governments is provided in research by Pillai and Williams.<sup>3</sup>

It is important to bear in mind that this review is limited to the terms of reference and thus requires a focus on the appropriateness, effectiveness and efficiency of the EPBC Amendment Act 2013. The review cannot consider other provisions of the broader EPBC Act, such as the referral/assessment/approval processes, significant impact guidelines, post approval regulatory arrangements or compliance and enforcement except to the extent that these provisions have influenced the operation and outcomes of the water trigger itself. For the same reasons, the One-Stop Shop approach for environmental assessments (including bilateral agreements) is also outside the Terms of Reference of the review.

### **3. HISTORY OF THE WATER TRIGGER**

In November 2011, the National Partnership Agreement on Coal Seam Gas and Large Coal Mining Development was established by the Australian Government with four state governments (Queensland, New South Wales, Victoria and South Australia) to strengthen the regulation of coal seam gas and large coal mining developments by ensuring that future decisions are informed by substantially improved science and independent expert advice.

In accordance with the National Partnership Agreement, the Australian Government established the Independent Expert Scientific Committee in November 2012 through an amendment to the EPBC Act. An Interim IESC operated between January and November 2012 before the establishment of the statutory IESC. The legislation establishing the IESC preceded and is independent of the water trigger.

Before the water trigger was established, while the Minister could seek the advice of the IESC, only impacts on the then existing matters of national environmental significance could be taken into account, for example, threatened ecological species and communities. The Minister did

---

<sup>2</sup> [www.dpmc.gov.au/office-best-practice-regulation/publication/post-implementation-reviews-guidance-note](http://www.dpmc.gov.au/office-best-practice-regulation/publication/post-implementation-reviews-guidance-note)

<sup>3</sup> Commonwealth power and environmental management: Constitutional questions revisited Environmental and Planning Law Journal, vol 32, p 395- 408

not have the power to consider and impose conditions directly relating to impacts on a water resource itself.

The Amendment Act established the protection of water resources from coal seam gas and large coal mining development as a matter of national environmental significance. The amendment passed the Australian Parliament on 19 June 2013 and came into effect on 22 June 2013. The Minister can now set conditions as part of a project approval to ensure any impacts on a water resource are avoided, mitigated or offset.

#### **4. OTHER MATTERS IN THE EPBC AMENDMENT ACT 2013**

A number of provisions are included in the Amendment Act to provide guidance to the application of the water trigger. These provisions are discussed briefly below.

##### ***Type of proponent***

The Australian Constitution limits Commonwealth legislative power to a small number of defined matters. As a consequence, the water trigger legislation primarily applies to coal seam gas or large coal mining developments that are undertaken by a constitutional corporation (most large companies in the relevant industries are in this category) or for the purpose of domestic or international trade.

##### ***Transitional provisions***

Developments approved before the water trigger came into effect (22 June 2013) were not covered by the water trigger legislation.

Any proposed developments that were referred to the Australian Government and were in the approval process at the time the water trigger legislation came into effect were covered by transitional provisions which required each proposed development to be assessed as to whether the water trigger applied. Those coal seam gas and large coal mining developments that were likely to have a significant impact on water resources were then assessed for their water-related impacts.

Information that had already been collected in the existing state and EPBC Act processes was utilised as much as possible in assessing and approving projects covered by transitional arrangements to ensure assessments proceeded efficiently. Proponents of each of the projects covered by the transitional provisions were advised of the Minister's decision.

##### ***Associated infrastructure***

The development of associated infrastructure that is not part of the extraction process is not included in the definitions of 'coal seam gas development' or 'large coal mining development'. This may include:

- transport infrastructure, such as pipelines, road or rail infrastructure or port development
- office/housing and amenity construction
- environment protection, monitoring and associated land management activities.



The development of infrastructure that is associated with coal seam gas or large coal mining development, but does not involve the extraction of coal seam gas or coal, does not need to be referred for its impacts on a water resource. The action may still need to be referred if it impacts on other matters of national environmental significance.

If an action is referred under the EPBC Act the water trigger legislation requires the proposed action to be considered as a whole. So, where an action referred to the Department includes both extraction of a coal seam gas or a large coal mining development and associated infrastructure then the significance of the whole of the referred action on water resources would be considered at the assessment stage.

### ***Expansions and modifications of projects***

If an approved project is substantially changed or extended, and if it is likely to have a significant impact on a water resource, then the water trigger legislation may apply.

If a referral for a proposed expansion or modification to a project does not involve extraction of coal seam gas or coal, then it will not be within the definition of 'coal seam gas development' or 'large coal mining development', and the water trigger will not apply. Note however that where an expansion or modification is referred as part of a broader action that involves the extraction of coal seam gas or coal, the water trigger may apply to the expansion or modification, if it is likely to have a significant impact on a water resource.

In the case of a proposal to intensify the extraction of coal seam gas or coal beyond that authorised by existing approvals, the water trigger may apply to the whole of the project, including existing approved extractive activities, if the impacts of the intensification cannot be identified separately from the existing extractive activities.

### ***Offences and penalties***

Civil penalty and offence provisions are established by the legislation to prohibit developments that have, will have, or are likely to have a significant impact on a water resource, unless done in accordance with an approval issued under Part 9 of the EPBC Act or otherwise exempted. These penalties and offences are consistent with penalties and offences for other matters of national environmental significance in Division 1 of Part 3 of the EPBC Act.

### ***Exemptions***

The legislation contains exemptions for developments where:

- the action was approved by the Minister under Part 9 of the EPBC Act before 22 June 2013
- the Minister decided under Part 7 of the EPBC Act that the action was not a controlled action or not a controlled action if taken in a particular manner (and the action is taken in that manner) before 22 June 2013
- the relevant person had been notified of a proposed approval decision under the EPBC Act in relation to the action and the Minister had received advice from the IESC on the action before 22 June 2013
- before 13 March 2013, both:
  - the action was not required to be assessed and approved under the EPBC Act and
  - a state or territory Minister had received advice from the IESC on the action
- the action held a prior authorisation before 22 June 2013.

## 5. IMPLEMENTATION OF THE WATER TRIGGER

### Significant impact guidelines for the water trigger

The Department released Significant Impact Guidelines<sup>4</sup> to clarify whether an action is likely to have a significant impact on a water resource. If significant impacts may occur, a proponent must submit a referral about the development to the Department for a decision by the Minister on whether assessment and approval is required under the EPBC Act.

#### *Definitions*

Under the EPBC Act (Section 528):

**large coal mining development** means any coal mining activity that has, or is likely to have, a significant impact on water resources (including any impacts of associated salt production and/or salinity) in its own right; or when considered with other developments, whether past, present or reasonably foreseeable developments,

**coal seam gas development** means any activity involving coal seam gas extraction that has, or is likely to have, a significant impact on water resources (including any impacts of associated salt production and/or salinity) in its own right; or when considered with other developments, whether past, present or reasonably foreseeable developments.

A ‘**significant impact**’ is an impact which is important, notable, or of consequence, having regard to its context or intensity.<sup>5</sup> Whether or not an action is likely to have a significant impact depends on the sensitivity, value, and quality of the water resource which is impacted, and on the intensity, duration, magnitude and geographic extent of the impacts. All of these factors should be considered to determine whether a significant impact is likely.<sup>6</sup>

The application of the water trigger relates to a development’s likely impact on a water resource, and not the size of the proposed coal seam gas or coal mining activity *per se*. The definitions apply to exploration, appraisal and pilot developments that involve extraction of coal seam gas or coal as well as production operations.

Extraction of coal seam gas or coal must form part of the activity and not merely be associated with it. Where referred along with new or modified extraction of coal seam gas or coal, the following activities are considered part of the extractive process:

- water supply for use in the extraction of coal seam gas or coal
- management of water generated as a result of extraction of coal seam gas or coal, such as holding dams or water treatment facilities
- management of waste generated as a result of extraction of coal seam gas or coal, such as spoil heaps.

---

<sup>4</sup> [www.environment.gov.au/resource/significant-impact-guidelines-13-coal-seam-gas-and-large-coal-mining-developments-impacts](http://www.environment.gov.au/resource/significant-impact-guidelines-13-coal-seam-gas-and-large-coal-mining-developments-impacts)

<sup>5</sup> See *Booth v Bosworth* [2001] FCA 1453

<sup>6</sup> [www.environment.gov.au/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance](http://www.environment.gov.au/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance)

However, these activities will not be considered as coal seam gas or coal mining development where there is no new or modified extraction of coal seam gas or coal.

### **Application of the water trigger**

At 31 October 2015, 23 coal seam gas and large coal mine developments considered likely to have a significant impact on a water resource have been approved under the EPBC Act and a further 42 developments are undergoing assessment. Under the transitional provisions of the Amendment Act, it was determined that 48 existing projects were likely to have a significant impact on water resources.

Since the water trigger legislation was introduced, the Minister has been able to require conditions for approval to ensure that any significant impacts on a water resource are acceptable. Broadly, conditions have included requirements for:

- more extensive baseline monitoring
- further research characterising relevant groundwater resources
- best practice monitoring and management for both water quality and quantity
- the review and updating of numerical groundwater models
- developing and implementing management actions to manage risk in stages so that changes or modifications can take new information into account
- identification of thresholds and limits relevant to the project's impacts on groundwater and surface water, including requirements to stop activity where limits have been reached
- management and monitoring of the final void (for open-cut coal mines).

During the environmental assessment process, impacts to water resources are often predicted using modelling. This indicates the nature and scale of the impacts of the project before its approval, and is used because impacts on water resources, particularly groundwater resources, often take long periods of time to become apparent. This modelling should be underpinned by extensive baseline monitoring of environmental conditions before any development commences, and that monitoring of actual impacts must continue once development starts so appropriate management can be ensured and to allow the models to be updated and improved.

### **The role of the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC)**

The Australian Government committed, under the National Partnership Agreement, to establish and maintain the IESC. The IESC was established as a statutory committee in 2012 under the EPBC Act. The IESC's functions are set out in Section 505D of the EPBC Act. In short, the IESC provides scientific advice:

- to the Environment Minister and relevant state Ministers<sup>7</sup> on the water-related impacts of proposed coal seam gas and large coal mining developments, including any impacts of associated salt production and/or salinity
- to the Minister on bioregional assessments, research priorities and research projects commissioned by the Minister.

The IESC does not give advice on or make decisions on whether or not to approve coal seam gas or large coal mining development proposals. This continues to be the role of the relevant state and/or federal government regulator.

More information about the IESC and its activities are available on its website at [www.iesc.environment.gov.au](http://www.iesc.environment.gov.au).

To date, the IESC and the interim IESC before it have provided 77 pieces of advice to the Australian Government: 10 on proposed coal seam gas developments, and 47 on proposed large coal mining developments. Consistent with legislative requirements, the IESC's advice has been taken into account by the Minister when a final decision on the approval of coal seam gas or large coal mining developments is made.

In some instances, the Minister has sought the advice of the IESC more than once on a proposed development to inform the setting of conditions.

The Committee's terms of reference require the IESC to provide advice within two months of receiving a request. The IESC is committed to not unduly delaying regulatory decision making processes.

The IESC reports its advice publicly on its website, which builds confidence that scientific information is taken into account in decision making.

Examples of this advice have included:

- Centennial Coal, Springvale Coal Mine (NSW): The Australian Government's approval decision reflected the interim IESC's advice regarding avoidance of mining directly under "high quality swamps" and buffer zones unless the proponent demonstrated (by a report) that this could be carried out without severe impacts of subsidence on the swamps (or such impacts could be successfully remediated).
- Dart Energy (NSW): The Australian Government required the proponent to provide additional groundwater monitoring for its Exploration Project at Fullerton Cove. This additional monitoring would assist in the Regional Groundwater Assessment for this area and formed part of the "particular manner" attached to this project to avoid and mitigate potential impacts to matters of national environmental significance.
- Middlemount Coal (Qld): The IESC's advice raised issues with the monitoring of cumulative impacts to the quality of surface and groundwater, lack of details regarding the design of the diversion of Roper Creek and the assessment of regional cumulative

---

<sup>7</sup> Currently, only state governments which are a signatory to the National Partnership Agreement on Coal Seam Gas and Large Coal Mining Development can seek the advice of the IESC. An amendment to the EPBC Act currently before the Senate, if passed, will permit those states not currently a party to the NPA to seek advice from the IESC.

impacts. In response to that information the State prescribed conditions for the proponent to develop a water monitoring plan. The Australian Government prescribed conditions for the proponent to prepare a plan to ensure that the water quality could be adaptively managed.

While the operation of the IESC is not within the scope of this review, the role the IESC has in the operation of the water trigger will be considered. Interested parties may wish to consider a recent independent review<sup>8</sup> of the NPA which included an analysis of the role of the IESC in enhancing the scientific evidence base and in providing independent advice to regulators to inform decision making. Some of the findings relevant to this review include that:

- IESC advice has been available to relevant regulators as intended under the Agreement and has been considered by regulators
- IESC advice to regulators has strengthened regulatory decisions.

## 6. THE REVIEW PROCESS

### Why is the water trigger legislation being reviewed?

Section 25 of the EPBC Amendment Act 2013 requires an independent review of the operation of this legislation.

When the water trigger amendment was introduced, the then Prime Minister granted an exemption from preparing a Regulation Impact Statement to enable the legislation to be implemented quickly to respond to community concerns. A Regulation Impact Statement assesses costs and benefits of proposed legislation to help ensure regulation is efficient and well-targeted to minimise the burden of regulation on businesses and communities.

As no Regulation Impact Statement was prepared when the water trigger legislation was introduced, the Office of Best Practice Regulation guidelines require a post-implementation review to be conducted.<sup>9</sup> This review will address both requirements – for an independent statutory review and a post-implementation review.

#### **S.25 Review of operation of Act**

- (1) The Minister must cause an independent review to be undertaken by a person or body of the operation of this Act.
- (2) The person or body undertaking a review must give a report of the review to the Minister.
- (3) The Minister must cause a copy of the report to be laid before each House of the Parliament within 15 sitting days of that House after the Minister receives it.

### How will the review be conducted?

The review will address the matters set out in the Terms of Reference and will follow the requirements set out in the OBPR Guidance Note, 'Post-Implementation Reviews, July 2014'.<sup>9</sup> The focus of the review will be on whether the water trigger remains appropriate, and to what extent the regulation is efficient and effective in protecting water resources from the potential impacts of coal seam gas and large coal mining developments.

<sup>8</sup> [www.environment.gov.au/water/coal-and-coal-seam-gas/office-of-water-science/npa](http://www.environment.gov.au/water/coal-and-coal-seam-gas/office-of-water-science/npa)

<sup>9</sup> [www.dpmc.gov.au/office-best-practice-regulation/publication/post-implementation-reviews-guidance-note](http://www.dpmc.gov.au/office-best-practice-regulation/publication/post-implementation-reviews-guidance-note)

Input sought through public submissions will focus on seeking evidence and examples of aspects of the legislation that are working well, and which aspects are problematic. Information is also sought on any gaps, duplication with other regulation and unnecessary elements of the legislation including unintended consequences. Verifiable information on costs in complying with the legislation are welcome.

Submissions to the review will be public unless confidentiality is specifically requested in the submission.

Appendix 2 provides detailed information on the way that information, including submissions and other evidence presented, will be considered by the review.

The independent reviewer will produce a report detailing conclusions and recommendations. Section 25 of the Amendment Act requires the review report to be given to the Minister and then tabled before both Houses of Parliament within 15 sitting days.

### **Who is conducting the review?**

Mr Stephen Hunter has been appointed by the Minister as the independent reviewer to conduct the review. Mr Hunter has been a senior official in various government agencies with agricultural and environmental responsibilities. He has extensive relevant experience in public policy analysis and evaluation especially in the fields of agriculture, environment and natural resource management.

### **Key review dates**

Issues Paper released calling for submissions	30 November 2015
Close of call for submissions	29 January 2016
Final report provided to the Minister for the Environment	By 31 March 2016

### **What does the review aim to achieve?**

The Australian Government is committed to efficient and well-targeted regulation to ensure that businesses and communities are not burdened by inappropriate regulation and that improved environmental outcomes are being achieved by the regulation.

The review will provide the Australian Government with a report that:

- quantifies the regulatory costs and benefits to businesses, community organisations and individuals, using the Regulatory Burden Measurement Framework<sup>10</sup> to determine whether the regulation has delivered a net benefit
- considers the costs and benefits to the broader community, specific industries (such as the agricultural sector) and the environment
- examines the appropriateness, effectiveness and efficiency of the legislation and provides conclusions and recommendations for further consideration by the Australian Government.

<sup>10</sup> [www.dpmc.gov.au/office-best-practice-regulation/publication/regulatory-burden-measurement-framework-guidance-note](http://www.dpmc.gov.au/office-best-practice-regulation/publication/regulatory-burden-measurement-framework-guidance-note)

The review will take account of relevant policies and reports listed in references section.

## **7. DISCUSSION OF ISSUES COVERED BY THE REVIEW TERMS OF REFERENCE**

This section contains questions to guide information provided through submissions, based on each of the Terms of Reference. The Terms of Reference for this review do not include matters involving the broader EPBC Act requirements such as post-approval plans and compliance and enforcement regulation except to the extent that those matters relate directly to the operation of the water trigger.

### **Examination of the appropriateness of the regulation including whether it is necessary and well targeted**

To consider the appropriateness of the legislation the review will examine whether its scope is appropriately focussed, whether it is fit for the purpose of protecting water resources, and whether matters the Minister must consider in making decisions are adequately defined. The need for ongoing regulation via the water trigger legislation and any gaps in the actions available under the legislation will also be examined.

The reviewer is interested in stakeholder views generally and particularly in relation to the following questions:

- What impacts of coal seam gas and large coal mining development on water resources was the water trigger legislation intended to address?
- What previous policy or regulation had failed to address impacts of coal seam gas and large coal mining development on water resources?
- Why was Australian Government action needed?
- Was there evidence that a regulatory approach would be effective in addressing the problem?
- What evidence suggested that the market would not resolve the problem over time?
- Was there, and does there remain, significant likelihood of a substantial negative environmental impact of coal seam gas and large coal mining development on water resources in the absence of the regulation?
- Is the scope and focus of the regulation (including definitions in legislation) appropriate to the problem being addressed?
- Are there significant gaps in the scope or intent of the regulation?
- Were alternative viable policy options (including non-regulatory approaches) considered at the time the water trigger legislation was being developed?
- If so why were these alternatives not adopted?
- Would any of those options now be worthy of further consideration?



## **Effectiveness of the regulation in protecting water resources from the impacts of coal seam gas and large coal mining projects, including the role and scope of work ascribed to the IESC**

To examine the effectiveness of the water trigger legislation, the review will consider the number and nature of projects approved under the EPBC Act, the nature of the conditions placed on projects as part of project approvals, and evidence of whether the protection of water resources has been improved since the introduction of the water trigger.

Input from stakeholders would be particularly useful in response to the following questions:

- Has the water trigger legislation been effective in protecting water resources potentially and actually affected by relevant developments?

### **Identify any opportunities to improve the effectiveness of the regulation**

To assess opportunities to improve the effectiveness of the water trigger legislation, the review will consider whether all impacts to water resources from coal seam gas and large coal mine developments were considered under the water trigger, whether there were any unintended adverse outcomes (perverse outcomes) or benefits, whether the outcomes of the legislation are clear, and any opportunities for improving the effectiveness of administration and implementation of the legislation.

The review is particularly interested in stakeholder responses to these questions:

- Are there gaps in the scope of the water trigger legislation that reduce its effectiveness in protecting water resources from relevant developments?
- Are there opportunities to improve the clarity of the legislation? This could include responses concerning the definitions of actions which are covered by the legislation, and whether the approval conditions on those developments provide benefit in protecting water resources.
- Are there improvements that could be made to the way in which advice is sought by the Australian Government from the IESC that could increase the efficiency of processes required as part of the water trigger, for example, when the advice of the IESC is sought?
- Were stakeholders appropriately involved in implementation of the water trigger legislation?

### **Examine the efficiency of the regulation in protecting water resources from the impacts of coal seam gas and large coal mining projects**

The efficiency of the regulation will be assessed by measuring the burdens on those affected by the legislation using the Regulatory Burden Measurement Framework. This may include monetary costs for entities proposing developments, resourcing for actions such as preparing management plans to protect water resources or time required for governments to administer arrangements required by the legislation. The review will also consider whether the regulation works well with other parts of the EPBC Act, and with state government legislation.

The questions that need to be considered regarding the efficiency of the water trigger in protecting water resources include:

- What have been the additional administrative compliance and delay costs arising from the water trigger that have affected businesses, communities organisations and individuals? (Note that a breakdown of potential costs is available from the Office of Best Practice Regulation Guidance Note on regulatory burden measurement<sup>11</sup>.)
- What have been the benefits of the water trigger for environmental outcomes, community confidence in the regulatory system of applying science to decision-making and management of environmental risk?
- Has the regulation delivered an overall benefit when regulatory costs are compared to the environmental and other benefits?
- The review will also seek information on the additional administrative and other costs to governments arising from the implementation of the water trigger.

### **Identify any opportunities to reduce or simplify the regulation whilst maintaining its effectiveness**

To examine this requirement, the review seeks stakeholder input on whether the form, scope, operation or implementation of the regulatory system could be altered to simplify or reduce its cost while maintaining its effectiveness.

For example, there may be evidence that could be presented to the independent reviewer to identify particular types of actions or management methods that could be acceptable to remove from the scope of the water trigger if these have had minimal effect, or there may be requirements that are difficult or costly to manage and which could be changed without diminishing the protection of water resources relevant to the water trigger.

### **Identify any recommended appropriate future review points of the regulation.**

The review is interested in stakeholder input on whether there are particular points in time, outside the statutory schedule for review of the broader EPBC Act<sup>12</sup> that should be considered as review points for the water trigger.

Stakeholders may wish to consider the potentially lengthy periods required for relevant coal seam gas and coal mining developments to go into production, and the time that may elapse before environmental and other impacts become evident. Scientific bodies may wish to consider the time required for relevant current research projects to be completed to a point where data is available to support decisions on water resources.

<sup>11</sup> [www.dpmc.gov.au/office-best-practice-regulation/regulatory-burden-measure](http://www.dpmc.gov.au/office-best-practice-regulation/regulatory-burden-measure)

<sup>12</sup> Section 522A of the EPBC Act 1999 requires it to be reviewed every 10 years from commencement.

## **8. HOW TO CONTRIBUTE TO THE REVIEW**

### **Call for submissions**

Written public submissions are an important part of the independent review of the water trigger. Submissions are invited from individuals or parties who have an interest in the issues to be considered under the Terms of Reference.

Submissions must be provided by 29 January 2016.

Submissions should respond to the Terms of Reference either as a whole, or with respect to specific items. The issues described in this paper do not seek to limit or define matters that may be pertinent to the review. Submissions should address all matters that authors consider relevant to the review's Terms of Reference.

The Department of the Environment website ([www.environment.gov.au/epbc/what-is-protected/water-resources/review](http://www.environment.gov.au/epbc/what-is-protected/water-resources/review)) contains information on making submissions. Respondents are strongly encouraged to use the user-friendly online submission process, which helps to identify information that may be useful to the review and provides information on printing, saving and sharing your input and enables you to keep informed as the review progresses. Additional information supporting your input can be uploaded to the online submissions portal.

The reviewer encourages all those interested in this subject to provide input by making a submission. Online submissions are preferred but you can send a written submission:

Email: [wtreview@environment.gov.au](mailto:wtreview@environment.gov.au)

Mailing address:

Water Trigger Review  
GPO Box 787  
Canberra ACT 2601  
Australia

### **Privacy and confidentiality**

As stated in an earlier section, submissions to the review will be published on the Department of the Environment website unless confidentiality is specifically requested. If submitters believe they have a good reason for keeping all or part of their submission confidential, it should be clearly stated in the submission. Where confidentiality is requested, the Privacy Act will be applied, noting the Department may be required by law to disclose the submissions in the future, for example, where an application is successfully made under the Freedom of Information Act 1982 (Commonwealth).

The personal information you provide us will be used for the purpose of the Independent Review of the water trigger, as described in the terms of reference. Personal details (such as email addresses) will be removed as far as possible prior to publication.

Your submission should not include personal information about a third party without their consent.

Contact the review secretariat by emailing <[wtreview@environment.gov.au](mailto:wtreview@environment.gov.au)> to obtain more information on this matter.

## **Other input**

The independent reviewer may, at his discretion, use other means to obtain information to support the work of the review including meetings with individuals and groups, commissioning new information and seeking other expert advice.

## **How can I find out more and keep in touch as the review progresses?**

Once finalised, the review report will be published on the water trigger review page on the Department of the Environment Website at: [www.environment.gov.au/epbc/what-is-protected/water-resources/review](http://www.environment.gov.au/epbc/what-is-protected/water-resources/review).

Information on the Department's website will be updated as the review progresses.

## 9. REFERENCES

The Terms of Reference for the review (Attachment A3) listed policies, studies and inquiries that the review should take into account, which are noted with an asterisk (\*). Links to additional relevant documents are also provided.

### Australian Government

The Australian Government Energy White Paper 2015.

Available at: <http://ewp.industry.gov.au/> \*

The Australian Government Domestic Gas Strategy 2015.

Available at: <http://industry.gov.au/energy/energymarkets/documents/domestic-gas-strategy.pdf> \*

The Independent Review of the National Partnership Agreement on Coal Seam Gas and Large Coal Mining Developments, September 2015.

Available at: <https://www.environment.gov.au/system/files/pages/354eb042-14dd-47fb-a24f-5dbd84834302/files/npa-review-final-report.pdf> \*

The Department of Industry and Science

Socioeconomic Impacts of Coal Seam Gas in Queensland, 9 October 2015.

Available at: <http://www.industry.gov.au/Office-of-the-Chief-Economist/News/Pages/Review-of-the-socioeconomic-impacts-of-coal-seam-gas-in-Queensland.aspx> \*

The COAG Energy Council Multiple Land-Use Framework 2013.

Available at: <http://www.scer.gov.au/workstreams/land-access/mluf/> \*

CSIRO economic and social research produced through the Gas Industry Social and Environmental Research Alliance.

Available at: <http://www.gisera.org.au/about.html> \*

### State and territory government

NSW Independent Review of Coal Seam Gas Activities in NSW – final report 2014.

Available at: [http://www.chiefscientist.nsw.gov.au/\\_data/assets/pdf\\_file/0005/56912/140930-CSG-Final-Report.pdf](http://www.chiefscientist.nsw.gov.au/_data/assets/pdf_file/0005/56912/140930-CSG-Final-Report.pdf) \*

The Report of the Independent Inquiry into Hydraulic Fracturing in the Northern Territory, published 26 February 2015.

Available at: <http://www.hydraulicfracturinginquiry.nt.gov.au/docs/report-inquiry-into-hydraulic-fracturing-nt.pdf> \*

The review of hydraulic fracturing in Tasmania, final report, published 25 February 2015.

Available at:

<http://dpiwwe.tas.gov.au/Documents/Review%20of%20hydraulic%20fracturing%20in%20Tasmania%20-%20Final%20Report%20%2025%20Feb%202015.pdf> \*

The submissions received in response to the Inquiry into the Implications for Western Australia for Hydraulic Fracturing for Unconventional Gas, commenced 7 August 2013.

Available at:

[http://www.parliament.wa.gov.au/Parliament/commit.nsf/\(EvidenceOnly\)/6C678FAE3E96186748257BC6002BAF31?opendocument](http://www.parliament.wa.gov.au/Parliament/commit.nsf/(EvidenceOnly)/6C678FAE3E96186748257BC6002BAF31?opendocument) \*

The submissions received in response to the South Australian Natural Resources Committee Inquiry into Unconventional Gas (Fracking) (in progress and appointed on 6 May 2014).

Available at:

[http://petroleum.statedevelopment.sa.gov.au/prospectivity/basin\\_and\\_province\\_information/unconventional\\_gas/inquiry\\_into\\_unconventional\\_gas\\_fracking](http://petroleum.statedevelopment.sa.gov.au/prospectivity/basin_and_province_information/unconventional_gas/inquiry_into_unconventional_gas_fracking) \*

The Victorian parliamentary inquiry into the coal seam gas industry, which is set to begin in the first half of 2015 and scheduled to be complete within 12 months.

Available at: <http://www.parliament.vic.gov.au/publications/research-papers/8927-unconventional-gas-coal-seam-gas-shale-gas-and-tight-gas> \*

## **Other sources**

Pillai, S and Williams, G 2015

Commonwealth power and environmental management: Constitutional questions revisited

Environmental and Planning Law Journal, vol 32, p 395- 408

## **APPENDIX 1 – COAL SEAM GAS AND COAL MINING DEVELOPMENT AND REGULATION IN AUSTRALIA**

### ***Coal seam gas production and coal mining in Australia***

The commercial production of coal seam gas in Australia is quite recent, commencing in 1996 in the Bowen Basin, Queensland. Significant reserves of coal seam gas are known in the Bowen and Surat basins in Queensland (figure 1). In New South Wales reserves have been proven in the Sydney, Gunnedah, Clarence-Moreton and Gloucester basins. Exploration has been undertaken or is planned to be undertaken in other coal basins including the Galilee, Arckaringa, Perth and Pedirka basins.

Australia is a significant global producer and exporter of coal, with 6 per cent of the world's economic resources of black coal and 25 per cent of the world's economic resources of brown coal. Coal has been mined in Australia for over 200 years and deposits occur in all states and the Northern Territory.

### ***Potential impacts of the production of coal seam gas and coal mining on water resources***

Developing Australia's extensive reserves of coal and coal seam gas has the potential to affect both surface and groundwater.

To produce gas from coal seams, water must be extracted first, lowering the pressure so the gas can flow out of the coal. The volume of groundwater extracted can vary significantly between individual wells, coal seams and coal basins, depending on geological conditions. During coal mining, groundwater may need to be extracted to enable safe operation of the mine.

Groundwater extraction may affect the quality and reduce the quantity of groundwater in adjacent aquifers that may be used for town water supply, irrigation, or that may contribute to springs and other ecosystems. Environmental impacts may also occur from the storage and disposal of extracted groundwater, the effects of chemicals used in drilling and hydraulic fracturing, stream diversions and land subsidence.

Australia's highly diverse landscapes mean the potential impacts can vary for each coal seam gas and coal mining project.

### ***The regulation of coal seam gas and coal mining developments***

Primary responsibility for regulating environmental impacts associated with the resource sector rests with state and territory governments. This is because environmental matters are not specifically identified in the Australian Constitution, thus coal and coal seam gas impacts and developments are primarily assessed and regulated under state government legislation.

So far, most major coal and coal seam gas extractions have been in Queensland and New South Wales. More information on the regulation of coal and coal seam gas extraction can be found on the Department of the Environment website.<sup>13</sup>

### ***Australian Government role and processes***

---

<sup>13</sup> [www.environment.gov.au/water/coal-and-coal-seam-gas/regulation](http://www.environment.gov.au/water/coal-and-coal-seam-gas/regulation)



The EPBC Act provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places defined in the Act as matters of national environmental significance.

Before taking an action that could have a significant impact on a matter protected by the EPBC Act, the proposed action must be referred to the Australian Government Minister for the Environment.

The Australian Government's Department of the Environment becomes involved when a coal seam gas development or large coal mine is likely to have a significant impact on a water resource - or another matter of national environmental significance.

There are two stages in the environment assessment process required by the EPBC Act:

1. Referral – to determine if a project requires approval under the Act
2. Assessment/decision whether to approve.

The referral is submitted to the Department for decision by the Minister. Once a valid referral is received the Minister has 20 business days to decide whether the coal seam gas project or coal mine requires assessment and approval, which includes a 10-day public comment period.

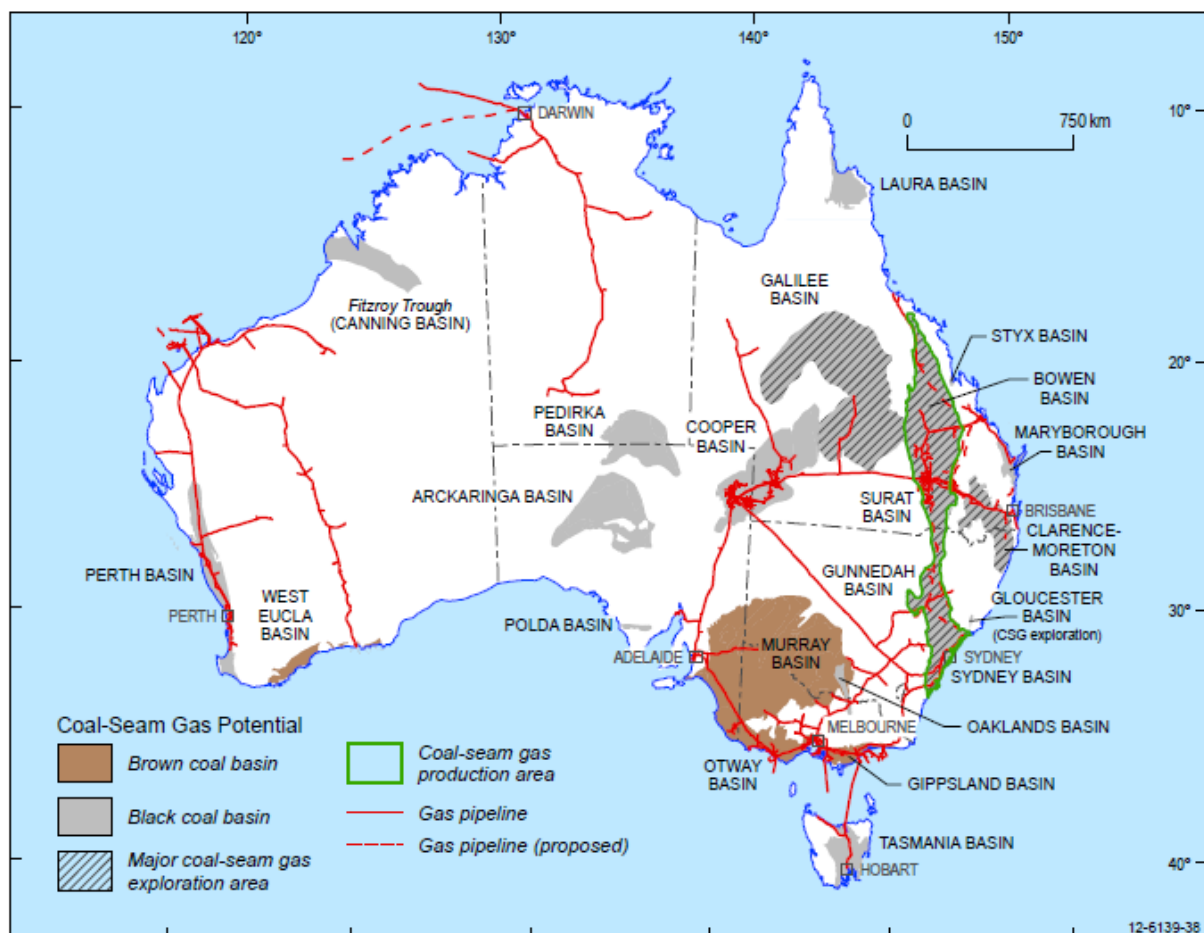


Figure 1. The location of the main coal seam gas and coal resources in Australia (source: Geoscience Australia and BREE, 2012, Australian Gas Resource Assessment 2012, Canberra).

If a significant impact on water resources is likely, the activity will need to be assessed and approved before it can proceed. This is called a 'controlled action'.

Coal seam gas or coal mine projects can be assessed using one of five methods. The process and timing for each type of assessment is set out in the EPBC Act. The EPBC Act sets out the process and timing requirements for each type of assessment with each process involving periods for public comment. When deciding if a proposed action should be approved and what conditions to impose the Minister must take into account:

- the principles of ecologically sustainable development
- the results of the assessment of the impacts of the proposed action, including the relevant recommendation report from the secretary of the federal environment department
- referral documentation
- community and stakeholder comments
- any other relevant information available on the impacts of the proposed action, and
- relevant comments from other Australian Government and state and territory government ministers.

The principles of ecologically sustainable development, reflected in the objects of the EPBC Act, are fundamental to decision-making under the Act. The principles include the precautionary principle; and the balancing of economic, social and environmental considerations.

The Minister may also take into account the environmental history of the individual or company proposing to take the action, including the environmental history of the executive officers of companies, and parent companies and their executive officers.

Following the assessment, the Minister will decide whether to approve the action, approve the action subject to constraints (that is, place conditions on the action), or not approve the action.

Conditions may be imposed to protect against, mitigate or offset environmental damage. Conditions can include bonds or other securities, independent environmental audits and compliance monitoring. Specialist officers monitor approved projects to ensure compliance with conditions – non-compliance is treated seriously and significant penalties can be applied.

If a project requires approval under the EPBC Act as well as state or territory legislation, the Australian Government prefers to undertake a joint or bilateral assessment with the relevant state or territory authority. This ensures a streamlined and consistent approach to the assessment and any conditions imposed on a project.

### ***Where can I find more information?***

The Department of the Environment website provides information on the Australian Government's approach to regulating coal seam gas extraction and coal mining and how best available science informs the Australian Government's approach to managing the environmental impacts of coal and coal seam gas development. This can be found at: [www.environment.gov.au/water/coal-and-coal-seam-gas](http://www.environment.gov.au/water/coal-and-coal-seam-gas).

## APPENDIX 2 – EVALUATION FRAMEWORK

The terms of reference specify that the focus of the review is on whether the EPBC Amendment Act 2013 (the regulation) remains appropriate, and to what extent the regulation is efficient and effective in achieving its objective.

The following Evaluation Framework reflects this overall focus and takes into account the OBPR Guidance Note on Post Implementation Reviews and the OBPR Regulatory Burden Measurement Framework.

Review Term of Reference	Key Evaluation Questions including from the OPBR Guidance Note on Post Implementation reviews	Potential Evidence Sources
1.Examine the appropriateness of the regulation including whether it is necessary and well targeted	<p>What impacts of coal seam gas and large coal mining development on water resources was the EPBC Amendment Act 2013 (the regulation)intended to address?</p> <p>What previous policy or regulation had failed to address impacts of coal seam gas and large coal mining development on water resources?</p> <p>Why was Australian Government action needed?</p> <p>Was there evidence that a regulatory approach would be effective in addressing the problem?</p> <p>What evidence suggested that the market would not resolve the problem over time?</p> <p>Was there and does there remain significant likelihood of a substantial negative environmental impact of coal seam gas and large coal mining development on water resources in the absence of the regulation?</p>	<p>Australian Government statements at the time the regulation was made including media statements, legislative documents, statements to the Parliament.</p> <p>Scientific or other robust evidence about the nature of the problem and the capacity of pre-existing arrangements to address it.</p> <p>Statements by interested industry, business, community groups or individuals at the time the regulation was being developed and considered.</p> <p>Views expressed by state, territory and local governments at that time.</p> <p>Contemporary submissions, evaluations and views (including by governments,industry business, community organisations and individuals) about the performance of the water trigger in achieving its objectives.</p> <p>Contemporary views about the efficacy of alternatives to the water trigger.</p>

	<p>Is the scope and focus of the regulation (including definitions in legislation) appropriate to the problem being addressed?</p> <p>Are there significant gaps in the scope or intent of the regulation?</p> <p>Were alternative viable policy options (including non-regulatory approaches) considered at the time the regulation was being developed?</p> <p>If so why were these alternatives not adopted?</p> <p>Would any of those options now be worthy of further consideration?</p>	
<p>2.Examine the effectiveness of the regulation in protecting water resources from the impacts of coal seam gas and large coal mining projects, including the role and scope of work ascribed to the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC)</p>	<p>In what manner was the EPBC Amendment Act 2013 implemented and evaluated?</p> <p>Were relevant stakeholders appropriately engaged in implementation?</p> <p>What was the number and nature of projects that were considered as a result of implementation of the regulation?</p> <p>How was the Independent Expert Scientific Committee engaged in the implementation of the regulation and was its advice available to decision makers?</p>	<p>Submissions, consultation and evidence from the Australian Government, state and territory governments, industry, business, community organisations and individuals.</p> <p>Any scientific and other robust evidence and/or evaluations of impact including consultation with the IESC.</p> <p>Scientific advice of the Independent Expert scientific Committee</p>

	<p>What was the nature of any conditions placed on approvals as a result of the regulation?</p> <p>What is the evidence that protection of water resources has improved as a result of the operation of the EPBC Amendment Act 2013?</p> <p>What was the impact of the regulation on the interests of relevant stakeholders?</p>	
3. Identify any opportunities to improve the effectiveness of the regulation	<p>Are there gaps in the scope of the EPBC Amendment Act 2013 relative to its objective?</p> <p>Are there opportunities to improve the working including clarity of the regulation?</p> <p>Were there any unintended consequences of the regulation in terms of its effectiveness that need to be addressed?</p> <p>Are there improvements that could be made to the administration and implementation of the regulation?</p>	<p>Submissions, consultation and evidence from the Australian Government, state and territory governments, industry, business, community organisations and individuals.</p> <p>Any scientific and other robust evidence and/or evaluations of impact.</p>
4. Examine the efficiency of the regulation in protecting	What have been the	Submissions from impacted businesses or organisations

<p>water resources from the impacts of coal seam gas and large coal mining projects</p>	<p>additional administrative, substantive compliance and delay costs associated with the regulation to business, community organizations and individuals? (See OBPR Regulatory Burden Framework Guidance Note for a breakdown of potential costs)</p> <p>What have been the additional administrative and other costs to governments arising from the implementation of the regulation?</p> <p>What have been the overall benefits of the regulation including in relation to environmental outcomes, community confidence in the regulatory system, application of science to decision-making and management of environmental risk?</p> <p>Has the EPBC Amendment Act 2013 delivered a net benefit?</p>	<p>representing affected business on cost and benefit impacts.</p> <p>Submissions, consultation and evidence from the Australian Government, state and territory governments, industry, business, community organisations and individuals in relation to relative costs and benefits of the regulation.</p> <p>Information from governments about the additional administrative and other costs associated with the regulation.</p> <p>Views of the IESC, relevant science community and other robust sources of evidence.</p>
<p>5. Identify any opportunities to reduce or simplify the regulation whilst maintaining its effectiveness</p>	<p>Can the form, scope, operation or implementation of the regulation be altered to simplify or reduce its cost impacts while maintaining its effectiveness?</p>	<p>Submissions, consultation and evidence from the Australian Government, state and territory governments, business, industry, community organisations and individuals in relation to opportunities to reduce or simplify the regulation while maintaining its effectiveness.</p> <p>Views of the IESC.</p>

6. Identify any recommended appropriate future review points of the regulation.	Are there particular points in time outside the broader schedule for review of the EPBC Act that should be considered as review points for the water trigger?	Submissions, consultation and evidence from the Australian Government, state and territory governments, business, industry, community organisations and individuals in relation to the timing of future reviews.
---	---	--