Review of the Load-based Licensing Scheme

Issues paper snapshot

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Have your say

You are invited to provide a submission or comments on the issues paper released as part of the review of the load-based licensing (LBL) scheme.

This summary document provides an overview of the issues paper, including the key issues covered and the options for change put forward for consideration. Stakeholders and anyone else with an interest in the LBL scheme are encouraged to read the full issues paper, available at www.epa.nsw.gov.au/licensing/lbl/lblreview.htm.

Your feedback on any of the issues outlined in the issues paper is welcome, together with any other matters relevant to the scope of the review.

Please provide your comments to the EPA by:

- Emailing LBL.Review@epa.nsw.gov.au
- Phoning 131 555
- Posting your submission to:

  LBL Review
  Regulatory Reform and Advice Branch
  Environment Protection Authority
  PO Box A290
  Sydney South NSW 1232

Submissions close at 5 pm on Friday 23 December 2016.

Abbreviations

AAQ NEPM	National Environment Protection (Ambient Air Quality) Measure
BOD	Biochemical oxygen demand*
CPI	Consumer price index
EET	Emission estimation technique
EPA	NSW Environment Protection Authority
FRT	Fee rate threshold
LBL	Load-based licensing
LCP	Load Calculation Protocol
LRA	Load reduction agreement
NEPM	National Environment Protection Measure
NPI	National Pollutant Inventory
NO_X	Nitrogen oxides*
OECD	Organisation for Economic Co-operation and Development
PFU	Pollutant fee unit
POEA Act	*Protection of the Environment Administration Act 1991*
POEO Act	*Protection of the Environment Operations Act 1997*
POEO General Regulation, the Regulation	Protection of the Environment Operations (General) Regulation 2009
$PM_{2.5}$	Particulate matter less than 2.5 µm in diameter
PM_{10}	Particulate matter less than 10 µm in diameter
PRP	Pollution reduction program
SO_X	Sulfur oxides*
TRP	Technical Review Panel
VOCs	Volatile organic compounds*

*Defined in Schedule 2 of the POEO General Regulation

Contents

Purpose of this document – a snapshot of the issues paper

The purpose of this document is to provide a succinct overview of the issues paper released by the NSW Environment Protection Authority (EPA) for its review of the load-based licensing (LBL) scheme. This snapshot presents the key issues covered in the issues paper and the options for change it puts forward for consideration.

If you intend to read the full issues paper you may not need to read this summary document. This snapshot intends to give you a feel for the range of issues and options presented in the issues paper and to help you identify if there are any specific areas of the issues paper you might like to consider in detail and provide feedback on.

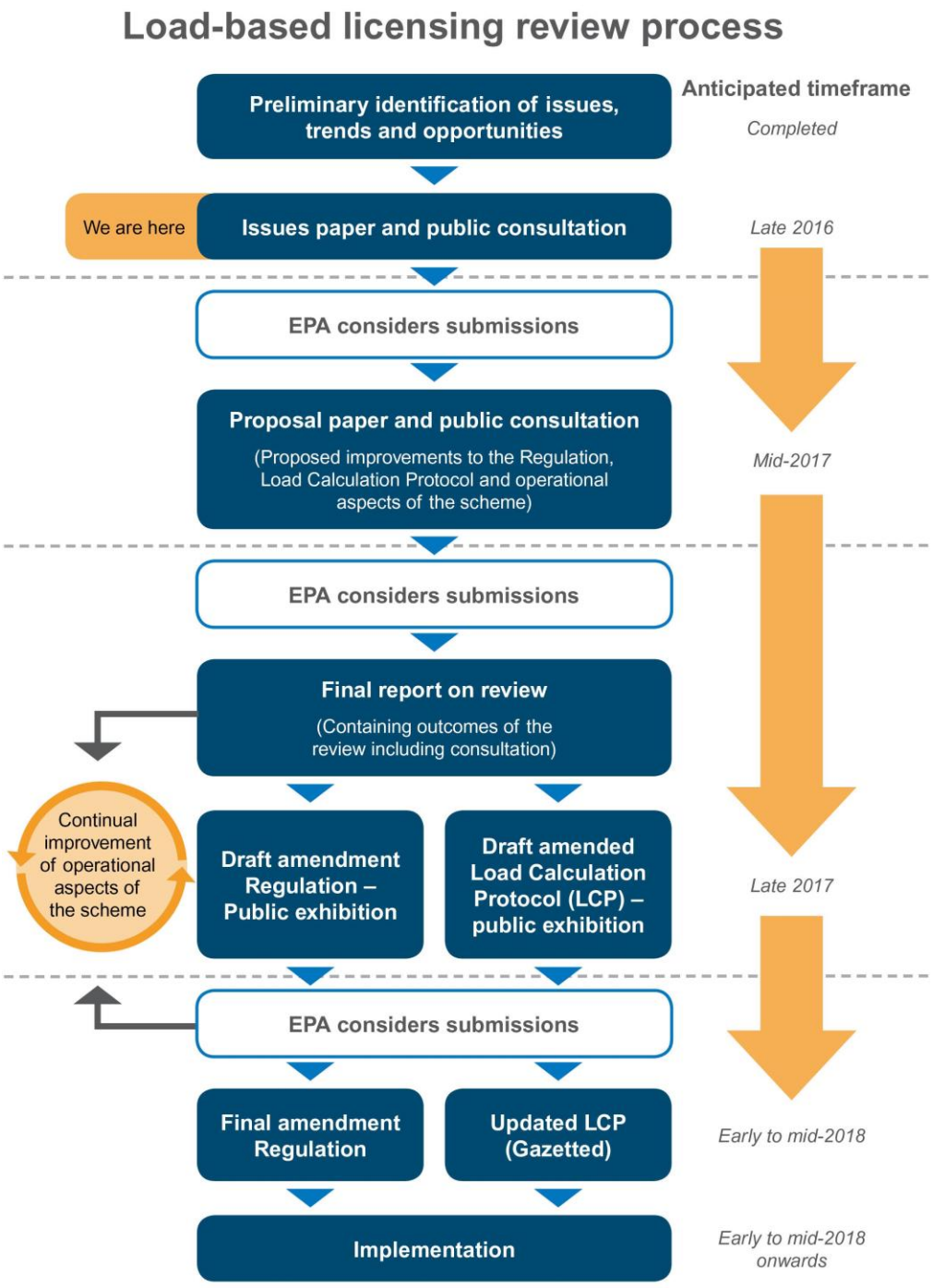
If you intend to submit answers to any of the topic or section focus questions, it is recommended that you first read the relevant section of the issues paper in full.

Key messages from the issues paper

- The EPA is seeking stakeholder feedback to inform a comprehensive review of the LBL scheme.
- The LBL scheme aims to encourage cleaner production by requiring some environment protection licensees to pay part of their licence fees based on the load of certain air and water pollutants their activities release to the environment.
- An analysis of pollutant trends in NSW reveals that overall, LBL licensees are releasing most assessable pollutants in lower quantities than eleven years ago, especially in critical zones.
- While not recommending specific changes to the LBL scheme, LBL issues paper includes a description of significant and complex environment issues in NSW that a strengthened and better targeted LBL scheme may help to address.
- Liable LBL pollutant fees paid show that some licensees may not currently have sufficient incentive to reduce discharges of some pollutants, including fine particulates (PM_{10}) to air, metals to water and biochemical oxygen demand (BOD) to water.
- Feedback collected via a survey of licensees shows that 40% of those surveyed think the scheme provides an incentive for them to improve their environmental performance, and 17% said it was a major driver for improvements they had made.
- Many licensees also said, however, that LBL fees were too low to provide an adequate incentive for further pollutant reductions; for example, when compared with the cost of the upgrades needed to reduce emissions.
- A comparative review of the NSW LBL scheme against similar schemes in other jurisdictions revealed its uniqueness in its combination of pollutants targeted; the incentives it provides to reduce pollution; its flexibility; and its use of varying weightings to recognise the harmfulness of different pollutants and their relative impacts on specific receiving environments.
- Elements of the LBL scheme are highly complex and many of the potential options for change presented in the issues paper are inter-dependent. Hence the paper does not attempt to cost the various options or provide estimates of potential changes to LBL fees.
- Following the consultation period for the issues paper, the EPA will prepare a proposal paper for further public consultation that takes into account the comments and views received on the issues paper. That proposal paper would include more refined plans for any proposed improvements to the LBL scheme together with a cost benefit analysis and an assessment of the likely financial impacts on licensees. An assessment of the wider potential effects of the proposal, such as the impacts that may be felt by other

industry sectors, would also be included where appropriate. The EPA will also consider whether transitional arrangements are needed to help licensees prepare for any changes.

- The purpose of the LBL review is to ensure the scheme is achieving emission reductions effectively and efficiently, and while the issues paper does not set out a proposal for change, it is the start of a genuine consultation process which it is hoped will garner substantial input from a wide range of stakeholders.


Load-based licensing review process
Anticipated timeframe
Preliminary identification of issues, trends and opportunities
Completed
We are here
Issues paper and public consultation
Late 2016
EPA considers submissions
Proposal paper and public consultation
(Proposed improvements to the Regulation, Load Calculation Protocol and operational aspects of the scheme)
Mid-2017
EPA considers submissions
Final report on review
(Containing outcomes of the review including consultation)
Continual improvement of operational aspects of the scheme
Draft amendment Regulation – Public exhibition
Draft amended Load Calculation Protocol (LCP) – public exhibition
Late 2017
EPA considers submissions
Final amendment Regulation
Updated LCP (Gazetted)
Early to mid-2018
Implementation
Early to mid-2018 onwards

1. Purpose and overview of the review

Introduction and purpose of the issues paper and this snapshot

The NSW Environment Protection Authority's (EPA) is currently conducting the first comprehensive review of the load-based licensing (LBL) scheme since its introduction in 1999. An issues paper has been produced to provide information about the performance of the LBL scheme and to seek stakeholders' feedback to inform a comprehensive review of the scheme's efficiency and effectiveness to date. The paper does not seek to recommend specific changes to the LBL scheme nor LBL fees, but rather looks at the LBL scheme in detail, identifies a range of issues and various potential options for its improvement, considering feedback already received, including a survey of LBL licensees.

This summary document provides an overview of the issues paper, including the key issues covered and the potential options for change put forward for consideration. Stakeholders and anyone else with an interest in the LBL scheme are encouraged to read the full issues paper, available on the EPA website, and to consider making a submission to the review. The **Have your say** page at the beginning of this document outlines the submission process.

Following the close of the consultation period, the EPA will prepare a proposal paper for further public consultation that takes into account the comments and views received on the issues paper.

Background to the LBL scheme

The LBL scheme aims to encourage cleaner production through a 'polluter pays' principle that requires some environment protection licensees to pay part of their licence fees based on the load of pollutants their activities release to the environment. By tying fees payable to pollutant loads, the scheme provides an ongoing economic incentive to achieve additional environmental outcomes to those required by regulation or licence conditions alone. The scheme is implemented under the *Protection of the Environment Operations Act 1997* (POEO Act), the Protection of the Environment Operations (General) Regulation 2009 (POEO General Regulation) and the Load Calculation Protocol (LCP).

Purpose and objectives of the LBL review

The purpose of the LBL review is to ensure the scheme is fulfilling its potential in achieving emission reductions effectively and efficiently. The objectives of the review are to:

- assess whether changes are needed to ensure the LBL scheme achieves its objectives as per clause 13 of the POEO General Regulation (see the box below)
- improve the effectiveness of the LBL scheme in driving reductions in air and water pollutant emissions, where required
- improve the efficiency and ease of use of the LBL scheme for licensees and the EPA
- ensure the LBL scheme has a complete range of tools.

Objectives of the LBL scheme as set out in the POEO General Regulation

(a) To provide incentives to reduce the load of pollutants emitted based on the polluter pays principle and to do so within an equitable framework.
(b) To reduce pollution (in particular, assessable pollutants) in a cost effective and timely manner.
(c) To give industry incentives for ongoing improvements in environmental performance and the adoption of cleaner technologies.
(d) To provide incentives that are complementary to existing regulation and education programs for environment protection.

To support the review, the EPA has already sought to identify issues, trends and opportunities, via:

- a *Comparative review of load-based licensing fee systems* in other Australian and international jurisdictions (conducted by BDA Group)
- an analysis of LBL emission and fee data, and National Pollutant Inventory data
- a survey of LBL licensees
- a literature review analysing the costs and benefits of a selection of pollutant fees

Scope, deliverables and timeframes for the LBL review

The scope of the review is broad and will cover consideration of:

- assessable pollutants – reduction in loads attributable to the scheme, fees paid for each pollutant, whether pollutants need to be added/subtracted from the scheme
- industries included in the scheme and whether additional industries should be subject to the scheme or some removed
- effectiveness of the mechanisms that address the relative environmental impact of emissions in general or where they are released into a specific area/type of receiving environment (e.g. critical zones and pollutant weightings)
- effectiveness of other aspects of the scheme and whether they are duplicative or in conflict with other parts of the POEO regulatory framework
- complexity of the scheme and fee formula and whether it efficiently adopts a polluter pays approach
- ease of use, efficiency, transparency and costs of the scheme for licensees and the EPA
- effectiveness of the scheme tools to assist LBL licensees to reduce their loads of assessable pollutants
- role and function of the Technical Review Panel.

The review will have a strong focus on the aspects of the scheme that are set out in the POEO General Regulation and the LCP, and the operational elements of the scheme. The review may also recommend further investigations that might be conducted to improve the scheme in the longer term.

The review process and anticipated timeframes are outlined in the diagram opposite page 1.

Check the EPA's LBL Review webpage at www.epa.nsw.gov.au/licensing/lbl/lblreview.htm for updates on the review process.

Next step – Proposal paper

The EPA will consider the results of consultation on this issues paper and develop a proposal paper for further public consultation. That proposal paper would set out any proposed improvements to the LBL scheme (a proposal), arising through the review.

A cost benefit analysis would be included with the proposal paper that considers the likely changes in a range of costs, including environmental damage costs, abatement costs, compliance costs and administrative and regulatory costs.

The proposal paper would also include an assessment of the likely financial impacts on licensees (e.g. the likely changes to liable LBL fees by industry sector) and an assessment of the wider potential effects of the proposal, such as the impacts that may be felt by other industry sectors, where appropriate. The EPA will also consider the need for transitional arrangements.

2. How was LBL intended to work?

The LBL scheme is a key component of the EPA's regulatory framework. The various components of this framework are designed to complement each other in a way that protects the environment while allowing flexibility (the right mix of approaches can be used for each set of circumstances), but also minimises the administrative burden and cost of regulation to industry and government. The original intention behind the introduction of LBL is best understood when viewed within this wider context, as a complementary tool in the EPA's regulatory framework.

The original intent of the LBL scheme

The LBL scheme was introduced to encourage cleaner production by applying the 'polluter pays' principle, defined as 'requiring those who generate pollution and waste to bear the cost of containment, avoidance or abatement'[1]. LBL was intended to provide a financial incentive to licensees to improve their environmental performance beyond statutory limits and other requirements; to move them beyond compliance. LBL is designed to complement traditional regulatory approaches to environmental protection. LBL is implemented under the POEO Act, the POEO General Regulation and the Load Calculation Protocol (LCP) – for further information about this, refer to: *NSW EPA's Load-based Licensing Scheme: Overview and facts about load-based licensing*.

In general, LBL operates at a different level to other tools that might be applied to protect against acute/localised impacts, such as pollutant concentration limits and other licence conditions. LBL assists the management of impacts which cover a broader area, such as airsheds, regions, or waterways; it allows the EPA to minimise and manage the potential development of cumulative impacts (see box below). Aspects of the scheme such as critical zones enable reduction incentives to be tailored to the specific pollutants of most concern for an area, thereby helping to manage the development of cumulative impacts.

What are 'cumulative impacts'?

'Cumulative impacts' or 'cumulative effects' have been defined as 'the net result of environmental impact from a number of projects and activities'[2]. They can result from actions that individually may be minor, but collectively could result in significant changes to the environment or communities.

[1] See section 6(2)(d)(i) of the *Protection of the Environment Administration Act 1991* (POEA Act).

[2] Sadler (1996), *Environmental Assessment in a Changing World: Evaluating Practice to Improve Performance,* International Study of the Effectiveness of Environmental Assessment Final Report, International Association for Impact Assessment and Canadian Environment Assessment Agency, Canada, URL: www.commdev.org/userfiles/files/1726_file_EAE_10E.pdf.

3. How effective has LBL been?

The issues paper includes an analysis of how effective LBL has been, using a range of indicators, including: the usefulness of pollution load data collected under LBL; the incentives LBL provides for harm reduction; trends in LBL emissions since the scheme began, and compared to non-LBL emissions; fees paid for specific pollutants and whether these reflect the EPA's environmental priorities; feedback from LBL licensees; and a *Comparative review of load-based licensing fee systems* in Australian and other OECD jurisdictions. The EPA's analysis to date suggests there are a number of ways the scheme can be improved, but also demonstrates that the scheme has provided effective incentives to many licensees to improve their environmental performance.

What do emission trends suggest?

The EPA has analysed emission loads reported to LBL and the National Pollutant Inventory (NPI) from 2003–04 to 2013–14. Data trends show that LBL licensees are releasing most assessable pollutants in lower quantities than eleven years ago, when considered as total loads release across NSW as a whole. Decreases in VOC (volatile organic compound) emissions to air, and salt, phosphorus and nitrogen emissions to water are more evident in areas where LBL fees are proportionately higher due to critical zone weightings, than in unweighted areas.

The panel chart opposite shows linear trends for assessable air pollutant emissions under the LBL scheme from 2003–04 to 2013–14[3]. The top chart shows a downward trend for all emissions combined, followed by charts for individual pollutants, grouped by approximate discharge quantities (in kg/year). A different y-axis scale is used for each group, to reveal the trend for every pollutant type, even those which are found at much lower concentrations.

What does the LBL fee data suggest?

The analysis of liable LBL pollutant fees (see box below) indicates that changes are needed for the scheme to ensure that licensees are given greater incentives to reduce discharges of a number of pollutants: PM_{10} to air, and metals and biochemical oxygen demand (BOD) to water in particular. Fees for these pollutants do not appear to reflect EPA priorities.

What are 'liable' LBL pollutant fees?

The term 'liable' LBL pollutant fees refers to fees that licensees would have been liable for had they paid both pollutant load fees and an administration fee. It does not represent the actual amount paid in fees as this is complicated by the load/administrative fee discount. This issue affects water pollutants in particular.

What are LBL licensees saying?

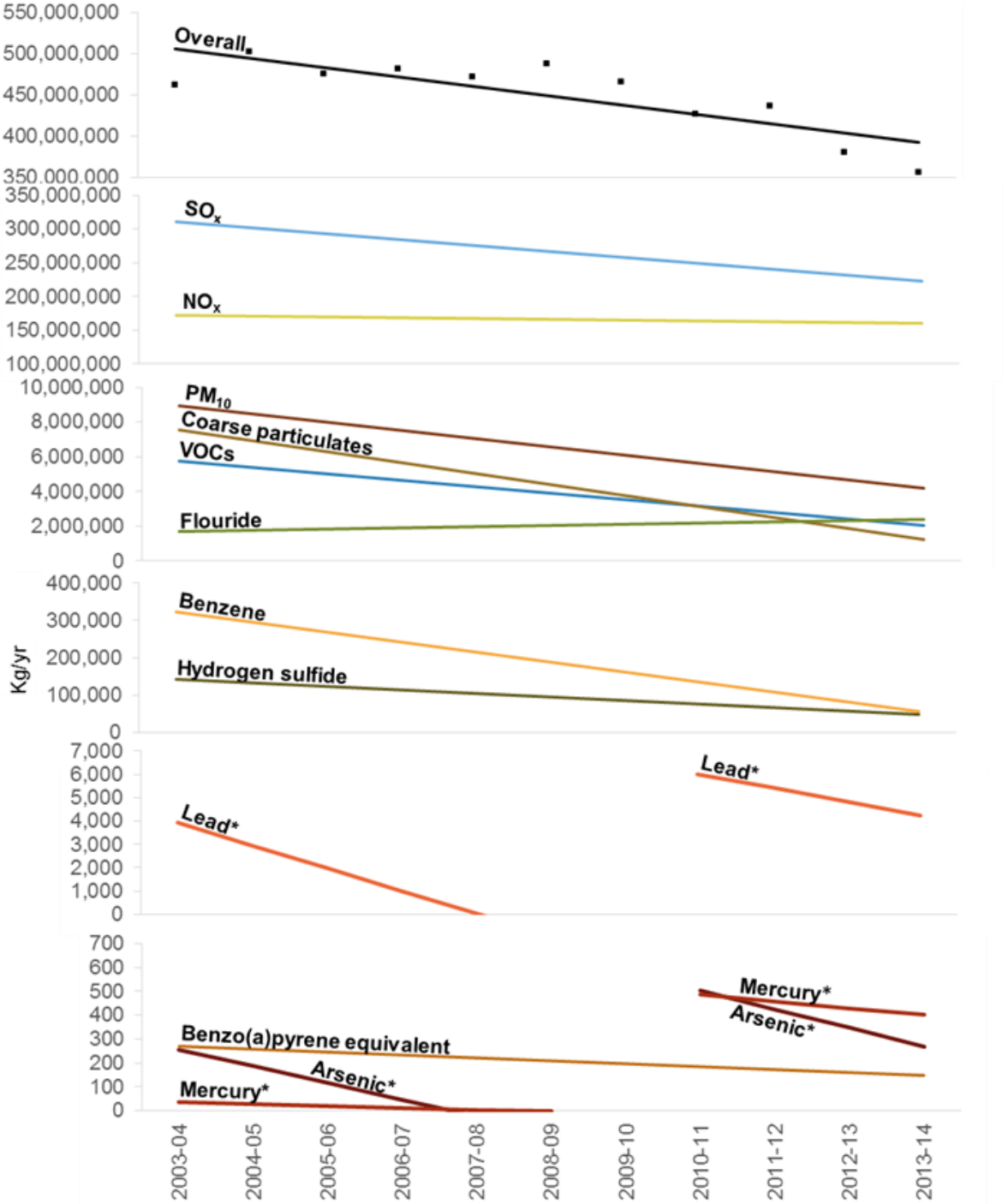
Forty per cent of licensees surveyed said that the scheme provides a range of incentives for them to improve their environmental performance and 17% said it was a major driver for improvements they had made. But many also said that fees were too low when compared with the cost of the upgrades needed to reduce emissions.

How does the LBL scheme compare to similar schemes?

The comparative review revealed that the NSW LBL scheme is unique in its combination of pollutants targeted; the incentives it provides to reduce pollution; its flexibility; and its use of varying weightings to recognise the harmfulness of different pollutants and their relative impacts on specific receiving environments. Operators of other schemes found it difficult to determine the amount of emission reduction that could be linked to their particular scheme;

[3] The NPI data used in this paper is based on revised data released by the Australian Government on 15 April 2016.

however, getting the level of fees right was recognised as essential in making these schemes effective. The comparative review also highlighted a number of improvements and issues to be considered as the LBL scheme is further developed; for example, how to avoid the perverse incentives that can be created where revenue recycling and subsidies are used.



Emissions of assessable air pollutants in NSW from 2003–04 to 2013–14, by mass (linear trend lines)

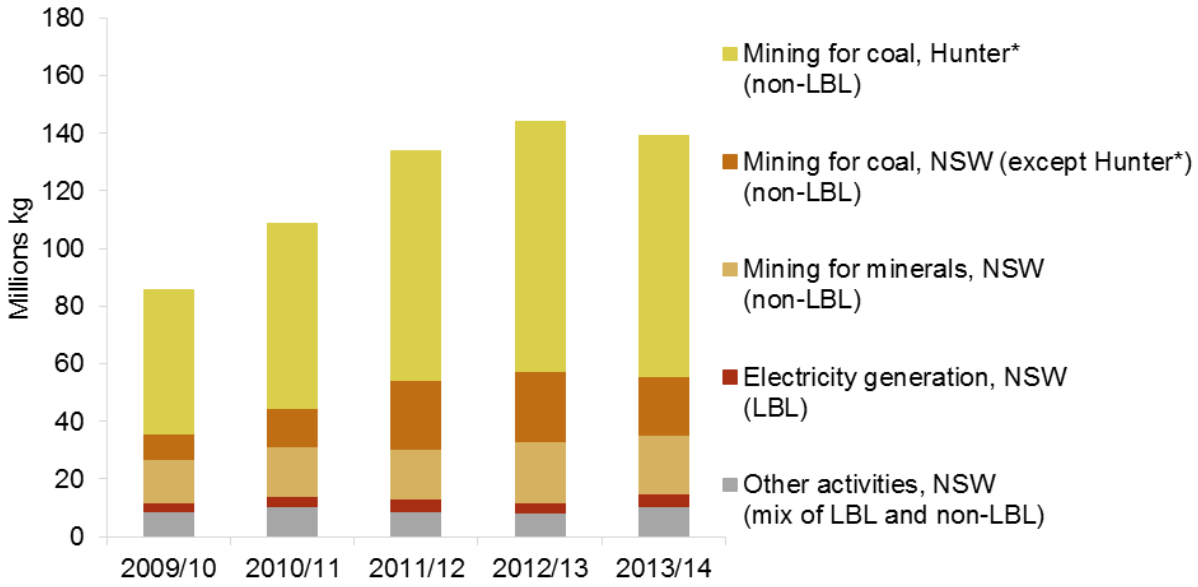
* The changes in lead, mercury and arsenic emissions shown are strongly influenced by two things: closure of the Pasminco Cockle Creek Smelter in Boolaroo in 2003–04 and a 2009 amendment to the POEO General Regulation that added arsenic, lead and mercury as assessable air pollutants to additional scheduled activities. Data for these pollutants is incomplete for 2009–10 due to variations in licensees' anniversary dates; therefore the three 2009–10 data points have been excluded from the charts.

If LBL pollutant loads are decreasing, what does this mean for the future of the LBL scheme?

NSW still has many **significant and complex environmental issues** that a strengthened and better targeted LBL scheme may help to address. The following outlines how standard regulatory approaches are producing diminishing returns and cumulative impacts are expected to develop or worsen unless new complementary environment protection measures are put into place.

Increasing loads of PM_{10} emitted to air from mining

Total loads of LBL assessable pollutants emitted to NSW from LBL premises have generally been reducing over the last eleven years (e.g. see the panel chart on the previous page); however, this is not the whole picture. Other data sets illustrate that emissions from some industrial activities are growing significantly and suggest that cumulative impacts have developed in specific geographic areas. For example, while PM_{10} emissions to air from LBL premises decreased from 2003/04 to 2013/14, NPI data from 2009–10 to 2012–13 shows an increase in PM_{10} from mining, with a small decrease in PM_{10} emissions in 2013–14 (see the figure below). Mining is not currently captured by the LBL scheme, so these emissions are not reflected in the LBL trend data.



Trends in PM_{10} emissions to air by source in NSW, 2009–10 to 2013–14, National Pollutant Inventory

*'Hunter' includes: Dungog, Gloucester, Great Lakes, Muswellbrook, Singleton and Upper Hunter local government areas.

Reducing human exposure to $PM_{2.5}$

LBL also has a role in providing an increased and ongoing incentive for licensees to reduce emissions of $PM_{2.5}$ emissions to air more generally by bringing $PM_{2.5}$ into the LBL scheme. $PM_{2.5}$ has human health impacts at even low concentrations. Relatively higher pollutant fees for $PM_{2.5}$ could be charged for licensees in areas located around highly populated areas and areas where the new AAQ NEPM(National Environment Protection (Ambient Air Quality) Measure) Ambient Air Quality standards may not be met in the near future due to pressures from industrial activities.

Population pressures in Western Sydney

The EPA anticipates that increasing development, land-use change and other pressures have a significant potential to cause degradation to air and water quality in a number of other geographical areas in NSW as well. This includes **Western Sydney** where increasing population growth and increased commercial and industrial activity will result in significant environmental impacts if we continue on a business as usual trajectory. The box below describes cumulative impact issues due to increasing loads of nutrients in the Hawkesbury-Nepean Catchment.

Studies (e.g. Nicholson *et. al.,* in prep) also indicate that parts of Western Sydney (such as Upper South Creek, Cawdor and Ropes Creek) have a high risk of developing significant land and waterway salinity issues, in part due to projected land-use change. This information will inform the review of critical zones and the need to prioritise parts of Western Sydney with regards to salinity in particular.

Western Sydney – cumulative nutrient impacts on the Hawkesbury–Nepean River

The Hawkesbury–Nepean River is an iconic waterway and an important environmental and economic asset for NSW. In the next 20 years, Sydney's population is predicted to grow by 1.6 million people, with 900,000 additional people added to Western Sydney (DPE 2014 - in Issues Paper). Most of this growth will be located in the North West and South West Growth Centres, which are largely within the Hawkesbury–Nepean Catchment.

A number of studies have shown that diffuse- and point-source pollution, reduced river flows and water extraction are all contributing to algal blooms and excessive aquatic weed growth in the river. Elevated nutrient loads associated with urban stormwater runoff and sewage effluent discharges are also contributing to poor waterway health more generally. This means the river does not support a healthy aquatic ecosystem and the community cannot safely use the waterway for recreational and commercial activities.

The NSW Government has implemented a range of initiatives to manage nutrient loads and protect the Hawkesbury–Nepean River. This includes nutrient load limits on sewage treatment licences under the LBL scheme. The health of the river has improved from being quite poor in some areas; however, significant improvements are still required before the river can meet the desired water quality objectives.

The condition of the river could deteriorate in the future due to the predicted population growth in Western Sydney, including (among a number of pollution sources) the associated increase in sewage treatment, unless new approaches are taken that reduce or avoid the impact of increasing nutrient loads. Licence conditions have limited the impacts of effluent discharges into the river to date and will remain a crucial component of the suite of actions that will need to be implemented to maintain the health of the Hawkesbury–Nepean River.

The LBL scheme will become an even more important tool for combating chronic and cumulative nutrients impacts as environmental pressures from population growth and land-use change come to bear. One of the challenges for the review of the LBL scheme will be to ensure incentives for reducing nutrients in the Hawkesbury–Nepean Catchment are set at the right level to encourage additional improvements.

Mining water discharges

Considerable work is underway to address the environmental impacts of mining (especially to address particulates to air).

Water discharges from mining activities can have high levels of salinity and metals. The environmental impacts of these discharges are regulated via conditions of environment protection licences and the Hunter River Salinity Trading Scheme (for discharges to specific sections of the Hunter River).For example, there is emerging evidence that additional measures are required to address the potential impacts of the constituents of saline mine water discharges (e.g. ionic composition, metals/metalloid contamination) across the state.

The EPA continues to negotiate pollution reduction programs (PRPs) with mines to ensure discharges contribute to restoring or maintaining the relevant NSW Water Quality Objectives; e.g. with Springvale Colliery and Angus Place Colliery in the Upper Coxs River catchment and Berrima and West Cliff coal mines in the Southern Coal Fields. Over and above conditions on environment protection licences, the LBL scheme has the potential to play an important role in driving desired water quality outcomes at the catchment level; including providing price signals to ensure licensees are putting in place measures to reduce pollutants of concern discharged to NSW waterways. As such, this review of LBL will be considering whether bringing additional scheduled activities into the LBL scheme might be an appropriate regulatory response to ensure that licensees have appropriate incentives to reduce their impact on water catchments.

Can LBL's cost-effectiveness be determined?

To determine the cost-effectiveness of the LBL scheme, the EPA would need to determine the extent to which the scheme's benefits to the community (from avoided environmental and health damage) outweigh the costs to industry (from reducing pollution and complying with the scheme's requirements), and the cost to government for administering the scheme. Where the benefits from imposing load-based fees outweigh the costs, the LBL scheme could be said to be delivering 'efficient' outcomes.

While it will not be possible to do this in a definite sense, there are a number of indications that some licensees need more incentive to improve their performance in places where it will make a significant difference to human and environmental health.

LBL assessable pollutant load trends across NSW as a whole indicate that emissions from LBL licensees have generally decreased over the past 10 years (see Section 3.4 of the issues paper). Conversely, some emissions which are not currently captured under the scheme have increased significantly over the last four years alone; namely PM_{10} to air and salt and metals to water from mining activities. This suggests that LBL, together with the rest of EPA's regulatory framework, is working effectively; however, it is difficult to determine the contribution that LBL has made in achieving these reductions.

How could better targeting improve the effectiveness of LBL?

During the review the EPA is considering how the scheme could be better targeted to provide additional incentives where there appears to be the potential for cumulative impacts to develop (or they already exits), and where evidence suggests that more needs to be done generally to reduce the emissions ($PM_{2.5}$ to air is an example of this). The review will also look at options to ensure the scheme is more responsive to available information and less reliant on information that is difficult to obtain. This includes ways to allow relevant LBL parameters to be adjusted relatively quickly.

Focus questions

1. How can the LBL scheme best complement other regulatory approaches?
2. What should the role of LBL be?
3. What shouldn't its role be?
4. Do you think the LBL scheme has been effective? Why or why not?
5. What does an effective LBL scheme look like?

4. Review of specific LBL elements and issues

Chapter 4 of the issues paper looks at a number of specific elements of the LBL scheme in greater detail, including:

- Key elements of the LBL scheme
- The LBL fee
- Other issues affecting costs and revenue
- Governance and administration issues
- Improving the Load Calculation Protocol.

Key elements of the LBL scheme

Assessable pollutants – are the right pollutants being captured?

Over the past 16 years, refinements in pollutant definitions, classification and measuring; changes in pollutant regulation and reporting requirements under other schemes; and improvements in our understanding of the long-term environmental and health impacts of pollutants, mean it is necessary to review the pollutants addressed though the scheme.

The issues paper presents two options for improving the coverage and classification of pollutants under the LBL scheme:

Option 1*: Similar to the status quo – include a broad list of pollutants that have actual or potential load effects in NSW*

Option 2*: Focus on the highest priority pollutants*

Topic focus question

1. Are there any particular issues with the current LBL pollutants, including the pollutants captured, definitions and weightings?

Please also refer to the **Section focus questions** below.

Critical zones – are areas of highest concern appropriately targeted?

A review of critical zones and their corresponding weightings has commenced. This is an important component of ensuring that LBL licensees are given appropriate incentives to reduce the pollutants that are currently of highest concern in each region.

The issues paper presents two options for improving critical zones:

Option 1: *Continuing with the status quo approach - based on the EPA's review of critical zones and the latest available evidence and data, provide updated critical zone locations and weightings for priority pollutants*

Option 2*: Further developing and expanding on the principles of the 'critical zone' approach, rather than creating critical zones over some discreet areas, assign area-specific weightings across the State*

Please refer to the **Section focus questions** below.

Scheduled activities – are appropriate activities included?

There are a number of potential inequities in the way scheduled activities are currently included in the LBL scheme. The review will see if the inequity is real and/or significant, if it can be addressed, and whether treating some licensees differently is justified.

The issues paper presents five options for improving the coverage of scheduled activities under the LBL scheme:

Option 1*: Extend the LBL scheme to cover all EPA licensees*

Option 2*: Extend the LBL scheme to cover all EPA licensed activities; however, exclude certain licensees through the use of thresholds or triggers*

Option 3*: Keep the current basic structure, but refine the coverage of the LBL scheme so that the highest emitting EPA licensed activities are captured, in order to cover more than 80% of assessable pollutant emissions*

Option 4*: Allow more flexible application of pollutants to each LBL activity (complementary to Options 1–3)*

Option 5*: Pursue a combination of two or more of Options 1 to 4*

Please refer to the **Section focus questions** below.

Load limits – are load limits being used effectively?

Data collected and feedback from licensees suggest that load limits are a valuable tool in many instances, but that their role needs to be reviewed and better articulated.

The issues paper presents four options for improving the use of load limits under the LBL scheme:

Option 1*: Develop an operational policy on the application of load limits*

Option 2*: Abolish load limits*

Option 3*: Decouple load limits from the LBL scheme and allow them to be used for any licensees where warranted, including non-LBL premises (complementary to option1)*

Option 4*: A combination of Options 1 and 3*

Topic focus question

1. Do you have any feedback/experience on the use of load limits that would assist the EPA to consider this issue?

Please also refer to the **Section focus questions** below.

Section focus questions

1. Do you consider any of the options described for assessable pollutants, critical zones, scheduled activities or load limits to be preferable? If so why?
2. Do you consider any of the options to be impractical or unworkable in some way? If so, why?
3. Do any of the options offer additional benefits or issues that the EPA should consider?
4. Do you have any other suggestions for improvement?

The LBL fee

The pollutant fee unit, pollutant weightings, critical zones and industry-specific fee rate threshold factors have the greatest potential to influence fees. They can all be used to ensure that pollutant load-based fees are set at an appropriate level so licensees receive the right signals about the EPA's priorities and can recognise the areas where additional improvements are required. Administrative/load fee discounts on the other hand are eroding incentives to reduce discharges of pollutants.

Effective fee setting

It is proposed to better target the LBL scheme by providing a significantly increased incentive for licensees to reduce specific pollutants, in specific areas, where this is merited. This is where the LBL scheme has the greatest potential to complement conventional regulatory approaches. The plan is to shape the scheme so that liable pollutant load fees match or at least approximate abatement or damage costs for pollutants of concern in specific geographical areas (see box below).

Optimal load-based fees – looking at abatement and damage costs

In theory, optimal load-based fees (per kg of pollution emitted) would be set at the point where the cost of abating an additional kg of that pollution (the marginal '**abatement cost**') is equal to the cost of the damage that would be caused by an additional kg of pollution (the marginal '**damage cost**').

In practice, an 'optimal' load-based fee means that, on a per kg basis:

- the fee is high enough to be sufficient incentive for licensees to put measures in place to **reduce** pollution, and
- the additional cost to the licensee is appropriate because it approximates the health and environmental damage costs that would be **avoided** for each kilogram of the pollutant that is **not emitted** into the environment.

Pollutant fee unit – a way of increasing fees across the board

Pollutant trends from LBL licensees seem to suggest that the pollutant fee unit (PFU) does not need to be increased to the point where it significantly drives emission reductions for all assessable pollutants from all LBL licensees across all of NSW.

The issues paper presents two options for increasing the PFU:

Option 1*: Maintain the status quo – a standard increase in the PFU to account for CPI*

Option 2*: Apply a moderate increase to the PFU*

Please refer to the **Section focus questions** below.

Pollutant weightings – a generalised increase in fees across the board for a pollutant

Increasing the pollutant weighting for a specific pollutant would be beneficial if evidence emerges, for example, that a particular pollutant is more harmful than originally thought and there is a need to reduce emissions of that pollutant in a uniform way across NSW; e.g. PM_{10} and $PM_{2.5}$.

Please refer to the **Section focus questions** below.

Critical zone weightings for target pollutants – a way of increasing fees for specific pollutants in specific areas

Critical zone weightings for specific pollutants can be used where there is a need to drive down emissions in a particular geographical area; e.g. particulates in the Hunter Valley and nutrients in the Hawkesbury-Nepean River. Such weightings could be further tailored to reflect either the cost of pollutant abatement, or the potential damage costs of the target pollutant for the environment and human health.

The issues paper presents three options for assigning critical zone weightings:

Option 1*: Maintain the status quo – assign critical zone weightings for target pollutants to reflect the relative priorities for reducing each pollutant in those areas*

Option 2*: Assign critical zone weightings for each target pollutant based on abatement costs*

Option 3*: Assign critical zone weightings for each target pollutant based on damage costs*

Please refer to the **Section focus questions** below.

Fee rate thresholds – a way of penalising poor performance

The fee rate threshold (FRT) approach may lead to inequities between licensees as varying FRT factors are applied for the same pollutant depending on the scheduled activity, but regardless of the scale of production for licensees within the same scheduled activity. Thus, licensees with similar processes may receive different incentives to reduce their emissions of the same pollutant. It is also difficult to get Australia-specific data to derive FRT factors. Poor performance may be better managed via licence conditions tailored to the details of the premises and receiving environment.

The issues paper presents three options for improving the FRT approach:

Option 1*: Remove fee rate thresholds*

Option 2*: Replace fee rate thresholds with a fee formula that increases in a different way*

Option 3*: Maintain the status quo approach – update the fee rate thresholds for current reasonably available technology*

Topic focus question

1. Has your business exceeded the FRT? If so, has this affected your decisions to reduce emissions?

Please also refer to the **Section focus questions** below.

Weighted loads – recognising harm reduction

Weighted loads can provide a discount to licensees who implement specific actions seeking to reduce the environmental harm of their discharges, such as effluent reuse (water) and green offset works. This kind of discounting has the potential for positive environmental outcomes when the works are carried out in appropriate circumstances and with appropriate safeguards and approvals.

Option 1: *Develop a green offsets policy to complement the LBL scheme*

Topic focus questions

1. Are there any barriers under the LBL scheme to appropriate effluent reuse and the use of green offset works?
2. Are load fees providing an incentive for licensees to implement appropriate reuse management options and green offsets? If not, how could the incentive be improved?
3. If you've been considering effluent reuse or offsets, what has your experience been? What has stopped you from adopting these approaches?
4. Do you have any suggestions for how the LBL scheme can be amended to encourage additional effluent reuse, where appropriate?

Please also refer to the **Section focus questions** below.

Administrative/load fee discounts – eroding incentives

Because close to half of LBL licensees do not pay load fees due to the administrative/load fee discount, they have little incentive to reduce load-based fees by reducing their discharges of pollutants.

The issues paper presents one option for removing this disincentive:

***Option 1**: Remove the current administrative/load fee discount – all LBL licensees pay the applicable administrative fee and load fees*

Please refer to the **Section focus questions** below.

Section focus questions

1. Do you consider any of the options described above for improving the pollutant fee unit, critical zone weightings, fee rate thresholds, weighted loads or the administrative/load fee discount to be preferable? If so why?
2. Do you consider any of the above options to be impractical or unworkable in some way? If so, why?
3. Do any of the above options offer additional benefits or issues that the EPA should consider?
4. Do you have any other suggestions for improving the LBL fee?

Other issues affecting costs and revenue

Compliance costs – are they being minimised?

A key component of regulation development and review is to ensure that the compliance costs of the regulated community are minimised. As part of the LBL review, the EPA is considering ways to reduce compliance costs for licensees across a number of areas, while still maintaining the integrity of the scheme.

The issues paper presents three options for minimising compliance costs:

***Option 1**: Modernise the LBL calculation and reporting process* (complementary to all options)

***Option 2**: Increase training and access to EPA assistance by establishing an LBL Technical Unit* (complementary to all options)

***Option 3**: Improve the flexibility of emission estimation techniques (EETs)* (complementary to all options)

Topic focus questions

1. What compliance costs does your business incur as a result of the LBL scheme? Please indicate if you have already provided the EPA with this information through the LBL survey.
2. Are you incurring high compliance costs in relation to pollutants that you do not emit, or that you emit in very small quantities? Please give details.
3. To what extent do you use the same process to collect information for LBL and NPI reporting purposes?
4. Would an online LBL portal for calculating and reporting loads reduce processing time and compliance costs for your business? What functionality would you like to see in such a system?
5. How could the Load Calculation Protocol of the LBL scheme generally be improved to reduce compliance costs?
6. Would access to an EPA LBL Technical Unit assist you in working through technical questions? What services should this unit provide? Would you be prepared to pay for some specialist services?

Please also refer to the **Section focus questions** below.

Load reduction agreements – a way of reducing fees so that funds can be spent on emission reduction works

Load reduction agreements (LRAs) provide financial assistance to licensees by allowing them to spend funds which would otherwise be paid in LBL fees, on measures to reduce their pollutant loads; however, LRAs have been less successful than other regulatory tools in reducing emissions and no LRAs are currently in place.

The issues paper presents three options for improving LRAs as a tool under the LBL scheme:

Option 1*: Increase the flexibility of LRAs* (complementary to all options)

Option 2*: Raise the profile of LRAs* (complementary to all options)

Option 3*: A combination of Options 1 and 2*

Topic focus questions

1. For licensees, what factors have deterred you from seeking LRAs for your activities?
2. Do you have clear information about your emissions to help you determine where an LRA might deliver the biggest benefits? If not, how could this be addressed?
3. Why have PRPs been more successful than LRAs at achieving positive environmental outcomes?

Please also refer to the **Section focus questions** below.

Revenue – could a portion of revenue generated by the scheme be used ('recycled') to support the scheme to achieve its objectives?

Currently all revenue generated by the LBL scheme is paid into the State's consolidated revenue. LBL licensees have suggested that at least part of their LBL fees should be re-invested in implementing and maintaining pollution reduction or effluent treatment, thereby

providing an incentive to reduce emissions and a way to ensure the LBL fees are used to reduce environmental impacts.

***Option 1**: Establish a grants program for emission reduction initiatives at LBL premises*

***Option 2**: Fund other emission reduction activities*

***Option 3**: Fund an LBL Technical Unit within the EPA and/or fund the Technical Review Panel*

Topic focus questions

1. Should there be some form of revenue recycling associated with the LBL scheme? If so, what should the revenue be used for?

Please also refer to the **Section focus questions** below.

Section focus questions

1. Do you consider any of the options described above for improving compliance costs or load reduction agreements to be preferable? If so why?
2. Do you consider any of the above options to be impractical or unworkable in some way? If so, why?
3. Do any of the above options offer additional benefits or issues that the EPA should consider?
4. Do you have any other suggestions for improving these issues relating to costs and revenue?

Governance and administration issues

Compliance assurance – how could the EPA's compliance assurance functions be improved?

The compliance assurance process for reporting under LBL must be robust, especially if LBL fees are increased for all or some LBL licensees, and if new industry sectors are brought into the scheme. Although the EPA does have some routine compliance checks in place, a more systematic, in-depth assessment process targeting reported load data and fees is required.

The issues paper presents two options for improving compliance assurance:

***Option 1**: Introduce independent certification of LBL annual returns* (complementary to option 2)

***Option 2**: Establish an ongoing program of focused LBL compliance audits* (complementary to option 1)

Topic focus question

1. What would be the most effective way(s) for the EPA to help licensees improve the accuracy and reliability of their reporting under LBL?

Please also refer to the **Section focus questions** below.

Administrative flexibility – would more flexibility make the scheme more responsive?

Considerable time is needed to change the technical aspects of the scheme set out in the Regulation, so the scheme cannot be changed quickly in response to emerging issues. The scheme would be more dynamic and effective if it could be more easily adjusted to remain aligned with corporate priorities and environmental goals as these change.

The issues paper presents one option for making the scheme more easily adjustable:

***Option 1**: Simplify the amendment of technical components of the LBL scheme by placing some outside the Regulation*

Please refer to the **Section focus questions** below.

Technical Review Panel – is it required or could the functionality and effectiveness of the TRP be improved?

The LBL Technical Review Panel (TRP) is a statutory, Ministerially-appointed independent technical body established to provide advice relating to LBL to the EPA. This review provides an opportunity to consider the TRP's role and how this pool of people with specialist skills and expertise could be better utilised.

The issues paper presents four options for improving the functionality and effectiveness of the TRP:

***Option 1**: Simplify the Technical Review Panel (TRP) member appointment process* (complementary to options 2 and 3)

***Option 2**: Simplify and improve support for the TRP* (complementary to options 1 and 3)

***Option 3**: Strengthen links and processes connecting the TRP with EPA operations* (complementary to options 1 and 2)

***Option 4**: Abolish the TRP*

Please refer to the **Section focus questions** below.

Section focus questions

1. Do you consider any of the options described above for improving compliance assurance, administrative flexibility and the Technical Review Panel to be preferable? If so why?
2. Do you consider any of the above options to be impractical or unworkable in some way? If so, why?
3. Do any of the above options offer additional benefits or issues that the EPA should consider?
4. Do you have any other suggestions for improving the governance and administration of the scheme?

Improving the Load Calculation Protocol

The Load Calculation Protocol (LCP) provides licensees with the prescribed techniques for estimating and reporting pollutant loads. It provides the link between the legislative requirements found in the POEO General Regulation and the information provided by licensees to the EPA annually. The LCP has not been significantly revisited or revised since the LBL scheme commenced and the EPA is aware of a number of issues, primarily around its complexity, flexibility and currency.

Through the review of LBL, the EPA will also be reviewing the LCP in detail to address the many issues that have been raised and align it with the proposed changes to the Regulation.

Topic focus questions

1. How could the LCP be improved to reduce complexity?
2. How could the LCP be improved to make it more current (up-to-date)?
3. How could the LCP be improved to make the scheme more flexible?