

GENERAL PURPOSE STANDING COMMITTEE NO 5  
INQUIRY INTO THE PERFORMANCE OF THE ENVIRONMENT PROTECTION AUTHORITY  
**SUPPLEMENTARY QUESTIONS AND ANSWERS 12 NOVEMBER 2014**

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## PENALTY NOTICE AMOUNTS: QUESTION 1

### Question 1

**Does the EPA consider a \$15,000 maximum fine for a penalty notice an appropriate level serve as a deterrent? a) What would the EPA advise would be an appropriate maximum penalty notice?**

Yes.

Penalty notice amounts in NSW are differentiated by:

- **the issuing authority:** for some offences, the value of a fine issued by a State government authority such as the EPA is higher than may be issued by a local council. This approach reflects the shared regulatory responsibilities under the *Protection of the Environment Operations Act 1997* where the EPA regulates larger, higher risk activities while local councils regulate smaller industries or individuals.
- **the nature of the offence:** the NSW Government recently introduced significant increases for some offences, leading to a tiered approach that reflects the relative seriousness of the offences:
  1. For the ten most serious environmental offences under the POEO Act, the penalty notice amounts will be:
    - \$15,000 for a corporation and \$7,500 for an individual, when these are issued by the EPA and other government agencies (where these are prescribed for particular offences) and
    - \$8000 for a corporation and \$4000 for an individual, when these are issued by local councils.
  2. For the 19 other serious environmental offences, the penalty notice amounts will be:
    - \$8000 for a corporation and \$4000 for an individual, when these are issued by the EPA and other government agencies and
    - \$4000 for a corporation and \$2000 for an individual, when these are issued by local councils.
  3. Some other penalty notice amounts under the Protection of the Environment Operations (Clean Air) Regulation 2010 and Protection of the Environment Operations (Noise Control) Regulation 2008 have been increased by between 50 and 100 per cent.

This means the EPA has the highest penalty notice amounts of any environmental regulator in Australia, for some environmental offences. The purpose of the increases was to make penalty amounts proportionate to the seriousness, harm and nature of the offence. The increased penalty amounts reflect community expectations regarding the financial penalties that apply to environmental offences and will provide an effective deterrent to committing environmental offences and re-offending.

A penalty amount needs to strike a balance between effectiveness as a deterrent and the practical limits of its use as an on-the-spot fine. It is also important to maintain the real value of the deterrent by not allowing it to erode through inflation.

Penalty notices are designed to be an effective and efficient means to deal with minor breaches of environmental provisions which are not serious enough to warrant instituting Court proceedings. Penalty notices are also used in conjunction with other regulatory actions such as licence conditions or Pollution Reduction Programs.

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**SCIENTIFIC SERVICES AND EXPERTISE: QUESTIONS 2, 3****Question 2**

**Regarding the service level agreement for scientific services with the Department of Environment and Heritage:**

- a) How many times has the EPA utilised the service level agreement for scientific services with the OEHS since the EPA was constituted as a statutory authority? Please provide this information for each financial year starting in 2011/ 2013**

The EPA utilises the scientific services covered under the Service Agreement on a daily basis.

- b) What is the total value of scientific services utilised by the EPA for scientific services since the EPA was constituted as a statutory authority? Could you please provide this information for each financial year starting in 2011/ 2013?**

The value of scientific support for each year of the operation of the Service Agreement is \$5 million.

Additional projects outside of the Service Agreement but paid for by the EPA, include:

- Mapping of threatened ecological communities: \$1.115M (\$100K 2013-14; \$615K 2014-15; \$400K 2015-16)
- Baseline koala mapping (\$50K 2013-14)
- Stream width assessment (\$61K 2013-14)
- Hunter salinity assessment (\$144k 2013-14).

**Question 3**

**How many scientists does the EPA employ on a permanent basis?**

At the end of June 2014, the EPA employed approximately 450 staff (full time equivalents) through permanent and temporary arrangements. It is estimated that 216 EPA staff (or almost 50%), who are employed on a permanent basis, hold tertiary qualifications in science, applied sciences and/or engineering, which underpin a broad range of technical disciplines. Staff with such qualifications have a technical capacity to understand or have insights into complex scientific or engineering concepts.

Staff with science or science-related tertiary qualification are based primarily in the operational, technical or regulatory roles, and a number of staff hold positions in the EPA's policy, governance and executive support areas. For technical roles in the EPA (i.e. 16 positions providing technical advice on air quality, noise, water quality and hydrogeology), it is often a prerequisite that staff hold scientific qualifications or equivalent. For regulatory or operational roles, while specific qualifications are desirable, they are not compulsory for most positions.

Significant levels of scientific and related technical expertise are also frequently acquired through on-the-job training and specialist training.

In addition to staff with a scientific background, many EPA staff hold tertiary qualifications in other disciplines, including law, economics, social science, public relations and communications. The EPA's capability assessment conducted in February 2014 found that of the 258 EPA staff respondents, 77 % had tertiary qualifications. Of these, the highest qualification held was:

- 29% Bachelors degree
- 46% Masters degrees
- 2% Doctorate).

Through the service level agreement with OEHS the EPA also accesses scientific expertise, particularly for the provision of scientific services in air, water, threatened species, and ecotoxicology. See Question 2 above.

**CLEARING THE AIR: RESPONSE TO RECOMMENDATIONS: QUESTION 4****Question 4**

**Which recommendations from the NCC report 'Clearing the Air: Opportunities for improved regulation of pollution in New South Wales' did the EPA adopt?**

**a) What were the reasons for not adopting the recommendations?**

At the time of the publication of *Clearing the Air* in 2012, the EPA provided the Environmental Defender's Office (EDO) with a set of responses to the recommendations in the report. (The report was prepared by the EDO at the request of the Nature Conservation Council.)

Since then, a considerable number of policy and legislative changes have taken place and in October 2014 the EPA updated the EDO on the *Clearing the Air* recommendations that were included by the EDO in its submission to the Inquiry. The responses provided by the EPA to the EPA are set out in the table below.

Note that responses to Recommendations 9.2 and 13 have been further updated to refer to the passage of the *Protection of the Environment Amendment Legislation Act 2014*, assented to on 28 October 2014.

RECOMMENDATION	EPA RESPONSE
1. The EPA's responsibilities for regulating air, water and land pollution should be specified in the legislation as enforceable duties. These duties should require that the EPA sets and reviews lists of pollutants and emissions standards, and impose best practice standards on all licenced facilities.	<ul style="list-style-type: none"> <li>Legislative amendments are a matter for the NSW Government.</li> <li>NSW's environmental legislation provides a credible and transparent regulatory framework that requires environmental, social and economic considerations to inform decision making.</li> <li>The EPA uses a suite of regulatory tools to respond to environmental issues and incidents. NSW's environmental legislation provides regulatory framework and measures to control emissions from industrial sources regulated by the EPA.</li> </ul>
2. Legislation should impose a general duty on all facility operators to prevent or minimise environmental harm arising from their activities.	<ul style="list-style-type: none"> <li>Legislative amendments are a matter for the NSW Government.</li> <li>The EPA's role in environmental protection commences in the planning stages of new development, and continues through the ongoing licensing provisions. This integrated process, includes general provisions relating to environmental performance requirements that ensure there is a robust mechanism for controlling and preventing environmental impacts.</li> </ul>
3. Decisions on strategic planning, development assessment and pollution control should be integrated to manage the cumulative impacts of existing and emerging pollution sources in a strategic manner.	<ul style="list-style-type: none"> <li>The role of the EPA in the planning process is a matter for the Government.</li> <li>The Government's current policy requires that a range of factors, including environmental factors, are considered for all classes of development, including major projects.</li> <li>The overarching principles of ecologically sustainable development form the basis of the EPA's decision making.</li> <li>These factors and the range of associated environmental issues are considered routinely in EPA decision making associated with proposed and existing potential pollution</li> </ul>

RECOMMENDATION	EPA RESPONSE
	sources.
<p>4. Measurable limits must be set on the cumulative amounts of pollution allowable at a State, catchment and site level.</p>	<ul style="list-style-type: none"> <li>Environmental legislation already sets a range of measurable limits in relation to specific air pollutants from point sources and in respect of ambient air. For water discharges, decisions are made within an established national framework to determine the environmental values of a specific waterway</li> <li>Where appropriate, the EPA considers cumulative impacts when making regulatory decisions.</li> <li>Additional measureable limits would need to be subject to legislative amendments which are a matter for the NSW Government.</li> </ul>
<p>5. Decision makers should be required to take into account a project's cumulative impacts in any decision on whether to approve it and must reject the project if these impacts will degrade the receiving environment.</p>	<ul style="list-style-type: none"> <li>The Government's current policy ensures that a range of factors, including environmental factors, are considered for all classes of development, including major projects.</li> <li>EPA advice and decision making associated with proposed and existing potential pollution sources takes into account environmental, social and economic considerations to inform decision making.</li> <li>The EPA also considers cumulative impacts when making regulatory decisions.</li> </ul>
<p>6. The EPA's independence in issuing and setting conditions on pollution licences should be reinstated for all classes of development, including major projects.</p>	<ul style="list-style-type: none"> <li>The Government's current policy ensures that a range of factors, including environmental factors, are considered for all classes of development, including major projects.</li> <li>The EPA provides advice on environmental controls in the planning process and in relation to state significant development and state significant infrastructure.</li> <li>Licences issued by the EPA can be reviewed and amended as necessary.</li> <li>The role of the EPA in the planning process is a matter for the Government.</li> </ul>
<p>7. Licensing of polluting facilities should be based on objective standards that maintain environmental health, rather than procedural requirements that do not consider the receiving environment. For example, the EPA should be required to reject a pollution licence application unless the applicant can demonstrate there will be no net degradation in the quality of the receiving environment. Additional considerations, such as whether the licence holder is a fit and proper person, and long-term impacts of the proposed facility, should also be considered. Pollution licensing should be based on objective standards considering the receiving environment.</p>	<ul style="list-style-type: none"> <li>Licensing decisions consider the impact on the receiving environment, taking into account environmental, social and economic considerations to inform decision making.</li> <li>These decisions take into account objective standards such as the ANZECC guidelines for water quality or the NEPM standards for ambient air. The EPA agrees that such standards need to be reassessed over time and is currently taking a leading role in developing new national performance standards for particles.</li> <li>The EPA must consider the 'fit and proper person' test now when issuing a licence.</li> </ul>
<p>8. Legislation should state that, unless expressly authorised, any pollution discharge is unlawful.</p>	<ul style="list-style-type: none"> <li>Legislative amendments are a matter for the NSW Government.</li> <li>These provisions already exist for water</li> </ul>

RECOMMENDATION	EPA RESPONSE
	<p>and land pollution.</p> <ul style="list-style-type: none"> <li>Air and noise pollution will always be a matter of degree given that virtually every human action, large or small, will have these impacts. Working out which actions should be regulated to attain the greater environmental benefit forms a large part of environmental legislation, policy, and compliance priorities.</li> </ul>
9. The EPA should utilise the strong regulatory tools available to it, and implement:	
9.1 Protection of the Environment Policies, so that all regulatory agencies are required to ensure ambient environmental conditions are met;	<ul style="list-style-type: none"> <li>Historically the EPA has developed and implemented tools other than Protection of the Environment Policies (PEPs) to achieve its objectives and deliver improved environmental outcomes.</li> <li>The EPA is currently examining opportunities to use PEPs to guide decisions that affect the environment, in particular in relation to air quality.</li> </ul>
9.2 Financial assurances to ensure that polluters remain financial responsible for minimising pollution and repairing associated environmental degradation;	<ul style="list-style-type: none"> <li>Financial assurances are an important tool utilised by the EPA.</li> <li>In the <i>Protection of the Environment Legislation Amendment Act 2014</i> (assented to on 28 October 2014) financial assurances have been introduced into the <i>Contaminated Land Management Act</i>. This will enable the EPA to require a person to whom a management order is directed to provide financial assurance for the actions under the order.</li> <li>The EPA is also examining the use of pollution insurance to pay for the clean-up of hazardous incidents.</li> </ul>
9.3 Capping and allocating the amounts of pollutants that can be emitted into a particular zone, based on the capacity of the receiving environment to maintain its environmental values (bubble licences)	<ul style="list-style-type: none"> <li>A bubble licence is an innovative tool that has proved its utility in the South Creek Bubble Licensing Scheme. The EPA is open to exploring the use of bubble licences to manage localised or sub-regional pollution issues.</li> </ul>
9.4 Pollution Reduction Programs should be imposed as a standard, mandatory licence condition. These should require industry to conform to continuous improvement of technology to reduce pollution. Their effectiveness should be audited and assessed at the five-yearly licence review.	<ul style="list-style-type: none"> <li>For new activities or premises that require an environment protection licence, pollution outcomes are built into the licence.</li> <li>A Pollution Reduction Program (PRP) is a flexible, tailor-made tool that can be used to require a licensee to address a specific issue within a specified timeframe. A large issue may be the subject of successive PRPs.</li> <li>While the 5 yearly statutory review process systemises the review of the activities or premises, the EPA does not await this process to manage licences using Pollution Reduction Programs (PRPs) when pollution becomes an issue. PRPs are used regularly to achieve significant environmental improvements based on site specific circumstances and</li> </ul>

RECOMMENDATION	EPA RESPONSE
	considerations.
<p>10. The EPA should cease to rely on Pollution Reduction Programs to enforce compliance with pollution licences, and these should not be included as a regulatory option in compliance policies and guidelines.</p>	<ul style="list-style-type: none"> <li>• The EPA utilises a range of regulatory tools to respond to environmental compliance issues. PRPs can be used in conjunction with other tools, including enforceable undertakings and the issue of penalty notices and prosecutions, and are considered to provide a very effective mechanism to secure environmental improvements.</li> <li>• For a review of the EPA's approach to compliance issues, see Chapter 2 of the EPA submission as well as the <a href="#">EPA's Compliance Policy</a> and the <a href="#">EPA's Prosecution Guidelines</a>.</li> </ul>
<p>11. Revise Schedule 1 to the POEO Act to ensure it includes a current list of all significant pollution</p>	<ul style="list-style-type: none"> <li>• The EPA monitors environmental issues across NSW to ensure activities with significant potential for environmental impact are regulated appropriately. This may include a recommendation that a particular type of activity or premises be licensed.</li> <li>• Since Schedule 1 to the POEO Act can be adjusted by Regulation, adjustments are regularly made on a needs basis.</li> <li>• However, the EPA recognises that, as with all regulatory frameworks, the licensing framework for NSW industry requires assessment of its continued effectiveness and efficiency and the EPA has and is undertaking targeted reviews to this end.</li> <li>• The NSW Government and the EPA have introduced a risk-based licensing system to commence on 1 July 2015. Risk-based licensing aims to ensure that all environment protection licensees receive an appropriate level of regulation based on the level of risk they pose to human health and the environment. The current implementation of risk based licensing involves the EPA undertaking risk assessments of each facility that holds an environment protection licence to identify environmental issues that need to be addressed.</li> <li>• As noted in item 2.5.6 below, the EPA is currently reviewing the LBL scheme.</li> </ul>
<p>12. Load based licensing should be extended to include a more comprehensive list of pollutants. For load based fees:</p> <ul style="list-style-type: none"> <li>– Revenue derived from load based fees is allocated to an EPA-managed or independent trust fund, and allocated specifically to environmental remediation projects to mitigate harm from industrial pollution.</li> <li>– The load based fee schedule should be revised to properly reflect the long-term costs to human health and the environment.</li> </ul>	<ul style="list-style-type: none"> <li>• The EPA is currently reviewing the load based licensing (LBL) scheme. A review discussion paper is scheduled to be released within the next few months. The appropriateness of pollutant load fees and other characteristics of the scheme are being considered as part of the review. The EPA welcomes suggestions for how the scheme can be improved. Detailed submissions will be invited on release of the paper.</li> </ul>

RECOMMENDATION	EPA RESPONSE
<p>13. The EPA should be empowered to immediately suspend pollution licences where necessary.</p>	<ul style="list-style-type: none"> <li>• The EPA has a range of tools, including the power to suspend a licence, in response to serious breaches.</li> <li>• In the <i>Protection of the Environment Legislation Amendment Act 2014</i> (assented to on 28 October 2014), an amendment has been introduced to provide that an appeal against a decision to suspend or revoke a licence does not operate to stay the decision. This will be an important provision in appropriate circumstances to ensure that environmental harm does not continue while a licensee appeals a decision to suspend or revoke a licence.</li> <li>• The EPA considers a range of factors, including the seriousness of the breach and level and extent of environmental impact, in determining the appropriate action.</li> </ul>
<p>14. Revise the pollution licences in a number of ways to ensure that:</p> <ul style="list-style-type: none"> <li>– the applicant has demonstrated compliance with best practice principles of waste management</li> <li>– licence conditions are ‘SMARTER’</li> <li>– licence limits reflect the capacity of the receiving environment to bear the impacts of pollution without degradation</li> <li>– licensees commit to continual improvement</li> <li>– offsets are imposed on unavoidable discharges to achieve ‘no net degradation’ in the long term</li> <li>– licences are reviewed in industry clusters to facilitate meaningful public participation; and</li> <li>– the community has a clear understanding of the industry and discharges.</li> </ul>	<ul style="list-style-type: none"> <li>• Environment protection licences are developed, reviewed and amended where necessary to ensure they address site specific environmental issues and that compliance will prevent a negative environmental impact.</li> <li>• The EPA welcome public submissions regarding specific licences at any time, not only during the formal licence review process. All submissions on licensing are considered.</li> <li>• The Government has introduced legislative provisions that require licence holders to make monitoring data required by their licence publicly available. Information about licensee discharges is also publicly available through the National Pollutant Inventory.</li> <li>• The EPA will publish the risk level of each licensed facility on the POEO Public Register from 1 July 2015.</li> </ul>
<p>15. The level of detail and comparative data reported in facility operators’ annual returns should be increased. Raw monitoring data is made publicly available to the community on the POEO Register, but the annual return should also include a report (provided by the licence holder) that interprets the results in a contextual and meaningful way for the community.</p>	<ul style="list-style-type: none"> <li>• The legislative provisions requiring that monitoring data be made publicly available makes licensees more accountable, and facilitates greater interaction between the community and industry.</li> <li>• Guidance has been prepared to assist industry to comply with the requirements and to ensure the data is presented in a meaningful and understandable way for the public.</li> </ul>
<p>16. Five-yearly review of pollution licences should include commitment to Best Available Technology.</p>	<ul style="list-style-type: none"> <li>• Where appropriate the EPA reflects environmental performance targets achievable through implementation of Best Available Technology. For example, improvements in air pollution control technology are reflected in the Clean Air Regulations, and through Pollution Reduction Programs (PRPs) using or referencing Best Available Technology.</li> </ul>



RECOMMENDATION	EPA RESPONSE
17. Ensure that end of project licence revocation does not occur until an independent audit has ensured that pollution (current and potential) has ceased.	<ul style="list-style-type: none"> <li>Where appropriate the EPA does use pre-closure, independent examination of licensed activities to ensure legacy issues are identified and addressed.</li> </ul>
18. Reinstate the role of community and local council representatives on the EPA Board.	<ul style="list-style-type: none"> <li>The Protection of the Environment Administration Act provides the establishment of an expertise based EPA Board. The current Board has expertise in environmental law and science, corporate, financial and risk planning and management, as well as established ties to business and community groups.</li> <li>Legislative amendments are a matter for the NSW Government.</li> </ul>
19. The EPA should work with local communities to ensure best practice transparency, and access to 'relevant and meaningful' information on pollution, in line with state goals and pollution law objectives	<ul style="list-style-type: none"> <li>The Government's reforms provide more transparency and accountability from both industry and government, and provide the community with greater access to EPA's decision making and industry's environmental performance.</li> <li>The EPA informs communities on pollution, waste management and environmental issues, policies and programs through various channels including its website the EPA Stakeholder Newsletter, and social media.</li> <li>Community members can join consultative committees that the EPA leads, participates in or directs licensees to establish.</li> </ul> <p>Community members are invited to engage on an informal and formal basis on specific projects and issues.</p>
20. Legislation should provide that a formal community consultation process is required for pollution licence reviews, for decisions relating to the issue, transfer or surrender of pollution licenses, and for licence variations which do not improve environmental outcomes.	<ul style="list-style-type: none"> <li>The EPA is required by law to notify the public of licence reviews.</li> <li>The EPA welcomes public submissions regarding specific licences at any time, not only during the formal licence review process. All submissions on licensing are considered.</li> <li>Community consultation on proposed activities is undertaken through the planning framework.</li> <li>The POEO Act requires that the EPA must consult the community where proposed changes to an existing activity have a potentially significant environmental impact. A recent exempt is the proposal to vary BHP Endeavour Coal's licence for the West Cliff mine. The terms of the licence variation reflected many of the community's suggestions.</li> </ul>
21. Ensure that the quality and effectiveness of community engagement, including community consultation committees, is monitored and reported on.	<ul style="list-style-type: none"> <li>The EPA recognises the importance of stakeholder engagement in promoting better environmental solutions, sound decision-making and improved environmental performance.</li> </ul>
22. Ensure that such community consultative committees seek out the aims, needs and preferences of the community and the environment, and can effectively contribute to	<ul style="list-style-type: none"> <li>The IPSOS survey was one of the first actions of the newly established Stakeholder Engagement and Governance Branch to inform the EPA on where it needs to focus to improve</li> </ul>

RECOMMENDATION	EPA RESPONSE
policy and decisions on pollution control.	<p>stakeholder engagement.</p> <ul style="list-style-type: none"> <li>• The EPA has adopted the IPSOS recommendations and is some way through a program designed to address them. For further information, see Chapter 3 of the EPA Submission</li> <li>• The Government places a high priority on community consultation by the EPA. For example the Newcastle Community Consultative Committee on the Environment (NCCCE) and the Rutherford Consultative Committee have been instigated. The NCCCE made input to the recently established Newcastle Local Air Quality Monitoring Network.</li> <li>• The Terms of Reference, minutes, agendas and actions from these committees are available on the EPA's website.</li> </ul>
23. Third party appeal rights should be implemented in relation to pollution licensing decisions.	<ul style="list-style-type: none"> <li>• Third party appeal rights exist in the planning system and the POEO Act allows for civil action.</li> <li>• Legislating for extending these third party rights are a matter for the NSW Government.</li> </ul>
24. The EPA's public register should be expanded to provide for publication of all relevant details of the licensing process. This includes: <ul style="list-style-type: none"> <li>– licence variation applications;</li> <li>– any public submissions received in relation to licensing decisions; and</li> <li>– reasons for all licensing decisions.</li> </ul>	<ul style="list-style-type: none"> <li>• Government's reforms have delivered access to additional information in relation to environmental regulation including licensee's monitoring results, penalty notices issued and mandatory audits required.</li> <li>• The EPA is continuing to improve the Public Register to ensure that information is more readily accessible and meaningful.</li> </ul>
25. The EPA should be empowered to immediately suspend pollution licences if emissions levels are exceeded.	<ul style="list-style-type: none"> <li>• See question 13 above</li> </ul>
26. Penalty notices for pollution offences should be used more frequently, and higher maximum penalties introduced.	<ul style="list-style-type: none"> <li>• The EPA uses a range of tools to respond to identified non-compliances and these responses are proportionate to the significance of the non-compliance. Penalty notices may either be used on their own or in conjunction with other compliance actions. The factors to consider in issuing penalty notices are set out in the <a href="#">EPA's Compliance Policy</a> and the <a href="#">EPA's Prosecution Guidelines</a>.</li> <li>• In August 2014, significant increases to the maximum fines for the most serious environmental offences commenced, including increases, from <ul style="list-style-type: none"> <li>○ \$1500 to \$15,000 for a corporation and from \$750 to \$7,500 for an individual, when the penalty notice is issued by the EPA or other state agencies (where these are prescribed for particular offences) and</li> <li>○ \$8000 for a corporation and \$4000 for an individual, when these are issued by local councils.</li> </ul> </li> </ul>

RECOMMENDATION	EPA RESPONSE
	<ul style="list-style-type: none"> <li>For another 19 other serious environmental offences, the penalty notice amounts increased to:               <ul style="list-style-type: none"> <li>\$8000 for a corporation and \$4000 for an individual, when these are issued by the EPA and other government agencies and</li> <li>\$4000 for a corporation and \$2000 for an individual, when these are issued by local councils.</li> </ul> </li> <li>This two-level approach reflects the shared regulatory responsibilities under the POEO Act where the EPA regulates larger, higher risk activities while local councils regulate smaller industries or individuals. The attached table sets out the offences and new penalty notice amounts for these key offences.</li> </ul>
<p>27. Move civil enforcement of POEO Act breaches to an 'own costs' jurisdiction in the Land and Environment Court, to remove costs barriers and increase access to justice by the community.</p>	<ul style="list-style-type: none"> <li>This is an issue for the NSW Attorney General.</li> <li>However, EPA continues to explore additional approaches to broaden the range of responses that might be taken for environmental offences.</li> <li>The EPA is considering how, when and whether civil penalties might be appropriate for some offences. This work is in its very early stages of exploration.</li> </ul>
<p>28. Upgrade the effectiveness of the EPA's response to industry audits and focus on benchmarking its methods and performance. This should align with Audit Office's 2010 recommendations on improved internal analysis. The progress of these improvements should be publicly reported by the EPA or the Environment Minister.</p>	<ul style="list-style-type: none"> <li>The Government's reforms in the re-establishment of the EPA require a measurement of the effectiveness of all of the EPA's compliance and enforcement activities.</li> <li>The EPA Board is required to provide the Minister with an annual regulatory assurance statement reporting on the EPA's success in achieving environmental and compliance improvements. The Minister must table the regulatory assurance statement in Parliament.</li> </ul>
<p>29. Given the likelihood that pollution breaches are often unreported:</p> <ul style="list-style-type: none"> <li>risk-based compliance audits should be undertaken more regularly,</li> <li>the findings for each facility should be published on the internet, and</li> <li>compliance action should be taken in response to identified breaches.</li> </ul>	<ul style="list-style-type: none"> <li>The EPA routinely undertakes a range of compliance assurance activities, including compliance audits.</li> <li>The Government's reforms have delivered access to additional information in relation to environmental regulation.</li> <li>Individual compliance audit reports have always been publicly available via the EPA's library. The audit reports for the recent high risk facilities audit have been made available on the EPA's website. The EPA continues to consider ways to improve community access to information regarding regulatory activities.</li> <li>The EPA takes action in response to all non-compliances identified through the compliance audit program.</li> </ul>
<p>30. Consider imposing a duty (accompanied by sufficient resources) to investigate pollution incidents for which local councils are the appropriate regulatory authority, in</p>	<ul style="list-style-type: none"> <li>Legislative amendments are a matter for the NSW Government.</li> </ul>

RECOMMENDATION	EPA RESPONSE
circumstances where all other mechanisms at council level have been exhausted.	
31. Undertake a review of the EPA's compliance and enforcement approach and policy to ensure it improves compliance and minimises harm.	<ul style="list-style-type: none"> <li>The EPA has reviewed and released its new <a href="#">Compliance Policy</a> which provides additional transparency to the public about the way it regulates industry in NSW.</li> </ul>
<p>32. The NSW Bureau of Crime Statistics and Research should be asked to undertake a comprehensive review of the enforcement of environmental offences. This review could include a consideration of:</p> <ul style="list-style-type: none"> <li>the use of penalty notices and the appropriate financial penalty to be imposed by these notices</li> <li>how the EPA's prosecution policy could be improved to more effectively deter environmental pollution offences</li> <li>how alternatives to financial penalties could be better used to improve enforcement of lower level offences.</li> </ul>	<ul style="list-style-type: none"> <li>The EPA publishes statistics for penalty notices issued and prosecutions undertaken in its Annual Report. It also publishes information about enforceable undertakings accepted by the EPA.</li> <li>The EPA uses a range and mix of strategies to achieve its goal of better environmental performance in respect of any environment non-compliance. This may include in appropriate cases, the issuing of penalty notices or prosecution.</li> <li>The EPA uses best practice regulatory principles and approaches in responding to environmental offences and improving industry attitudes towards environmental performance.</li> <li>The EPA uses a range of strategies including education, compliance assurance and enforcement. The EPA's response to non-compliance is based on the seriousness and impact of the breach.</li> <li>The EPA actively monitors emerging trends in regulation and compliance and enforcement in Australia and overseas. The EPA is an active member of Australasian Environmental Law Enforcement and Regulators network (AELERT) and International Network for Environmental Compliance and Enforcement (INECE) and regularly reviews environmental and compliance initiatives and innovations.</li> <li>The EPA Board will monitor the EPA's performance through the annual regulatory assurance statement reporting on the EPA's success in achieving environmental and compliance improvements.</li> </ul>
<p>33. Make alternative enforcement orders available, including:</p> <ul style="list-style-type: none"> <li>orders which allow the Court to insist that a corporate defendant undertake satisfactory internal disciplinary action</li> <li>equity fines, where shares from a convicted corporation go to a public interest trust fund.</li> </ul>	<ul style="list-style-type: none"> <li>The EPA takes regulatory action against corporate entities and individuals for environmental offences, depending on where culpability lies.</li> <li>The Government has introduced measures giving the Land and Environment Court alternative approaches to sentences, including the ability to set restorative justice actions which would benefit the environment and the victims of environmental incidents.</li> </ul>

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## PROSECUTIONS AND ENFORCEMENT: QUESTIONS 5, 6

### Question 5

**On page iv of the EPA submission it is stated that “the EPA has a 95% success rate for prosecutions in the courts”. How many and what percent of breaches of environmental regulation are taken to court as prosecutions?**

For the financial year 2013/2014 the EPA:

- commenced 33 cases in the Land and Environment Court and 57 cases in the Local Court for environmental offences. These were matters where a breach was identified, the EPA established that prosecution is the appropriate regulatory response and there is sufficient evidence to commence the matter in court and it determined on policy grounds it was appropriate to prosecute.
- completed 14 cases in the Land and Environment Court and 45 cases in the Local Court for environmental offences. These are matters where the EPA received a judgment in a matter it had commenced. The EPA achieved a 95% success rate for its prosecutions in court.
- issued 1,234 penalty notices for offences ranging from water pollution to litter.
- issued 60 clean-up notices to licensed and unlicensed operators.
- issued 153 official caution letters.
- implemented 180 pollution reduction programs on environment protection licences.
- entered into 3 enforceable undertakings.

These figures demonstrate the mix of regulatory responses the EPA employs for breaches of environmental regulations.

The EPA's [Compliance Policy](#) and [Prosecution Guidelines](#) inform decisions regarding which cases are appropriate to commence in court and which matters are more appropriately dealt with via a different regulatory tool.

### Question 6

**The EPA submission mentions that there are other approaches the EPA takes including environmental service orders, enforceable undertakings and restorative justice approaches.**

**a) How many times have they been used? Please provide a breakdown for each of the approaches above.**

The EPA has negotiated 14 enforceable undertakings since 2007. Copies of all these enforceable undertakings are available on the [POEO Public Register](#).

The EPA sought and obtained environmental service orders (ESOs) in LEC prosecutions:

- In 2 cases in FY2012-2013 totalling \$130,000
- In 4 cases in FY 2013-2014 totalling \$122,500
- In 12 cases to date, in current FY 2014-2015, totalling \$871,250

Restorative justice as a specific remedy under environment legislation is new. Legislative amendments to incorporate it under the *Protection of the Environment Operations Act 1997*, the *Contaminated Land Management Act 1997* and the *Radiation Control Act 1990* are contained in the *Protection of the Environment Legislation Amendment Act 2014*. This Act has not yet commenced but is expected to commence within the next month.

However, despite this, the EPA has used elements of the restorative justice process in developing proposals for ESOs to be considered by the Courts, for example, the community was involved in developing proposals for the ESO in the prosecution of Orica in 2014 for the Kooragang Island chromium leak.

**b) Has their effectiveness been monitored?**

The EPA monitors completion of ESOs through its regional staff, who work with the Office of Environment and Heritage's Legal Services Division where necessary when issues arise with completion of environmental service orders.

Compliance with enforceable undertakings is monitored by the EPA branch with responsibility for the relevant enforceable undertaking.

The EPA undertakes ongoing review of its regulatory approach to ensure outcomes are optimised and selection of appropriate regulatory responses balance the priority of improving environmental outcomes, protecting the community, and taking action that achieves specific and general deterrence.

**c) What is the criteria for determining whether to use environmental service orders, enforceable undertakings, restorative justice approaches or prosecutions?**

The EPA's [Prosecution Guidelines](#) and [Compliance Policy](#) inform its decision making on appropriate action in response to a breach of environmental protection legislation

*Environmental service orders*

The EPA's Guidelines on seeking environmental court orders are available on its [website](#).

The EPA may elect to seek an ESO in lieu of a fine in circumstances where suitable projects can be identified in the locality in which the offence was committed. The defendant's capacity to pay will affect this consideration. The ESO remains a form of punishment and additional orders are sought in conjunction with the ESO, to ensure that whenever the defendant refers to the works funded in accordance with the ESO, they are required to disclose that this funding was a consequence of a conviction and sentence in the Land and Environment Court.

ESOs will only be appropriate in cases where the likely penalty would be sufficient to cover an environmental works project, which is usually in the tens of thousands of dollars.

*Enforceable undertakings*

The EPA's guidelines on enforceable undertakings are available on its [website](#).

*Restorative justice*

Guidance in relation to the use of restorative justice is being developed. Note that the restorative justice provisions in the *Protection of the Environment Operations Act 1997*, the *Contaminated Land Management Act 1997* and the *Radiation Control Act 1990* are contained in the *Protection of the Environment Legislation Amendment Act 2014*. This Act has not yet commenced but is expected to commence within the next month. (See answer a) above).

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## MONITORING DATA: QUESTION 7

### Question 7

#### **Does the EPA generally rely on license holders own environmental data for monitoring license conditions?**

Generally the EPA relies on information provided by environment protection licence (EPL) holders to monitor their compliance with licence conditions. Licence holders are required to provide a Statement of Compliance to the EPA each year indicating the extent to which they have complied with the conditions in the EPL. This includes a high level self-certification process whereby licensees certify the extent to which they have complied with EPL conditions.

Licensees are also required to provide a summary of all environmental monitoring required by the EPL. In addition, the EPA can also undertake its own environmental monitoring to verify compliance with licence conditions such as when it suspects that there is a potential breach of a licence condition.

#### **a) How is the integrity of this data checked?**

The monitoring requirements on EPLs require monitoring in accordance with prescribed standards. For example, for water quality monitoring, sampling and analysis of samples must be undertaken using the methods prescribed in the *Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales* (Department of Environment and Conservation, March 2004). In addition the analysis is required to be undertaken by a laboratory accredited to perform those analyses by an independent accreditation body acceptable to the EPA, such as the National Association of Testing Authorities (NATA), or equivalent. In cases where discharges to air are required to be monitored, any samples collected must be analysed in accordance with the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* (Department of Environment and Conservation, January 2007).

- EPA staff review all Annual Returns provided for completeness. If any of the required information has not been provided, the Annual Return is sent back to the licensee to be completed. EPA staff also review Annual Returns to determine if there have been any exceedances of licence limits, to determine the cause of the exceedance and the action taken by the licensee to prevent a reoccurrence. In addition EPA staff also looks at long term monitoring trends to detect any anomalies in environmental data being reported by licensee holders that may indicate problems with the integrity of the data.
- The EPA has air, water and noise specialists who are able to review monitoring programs as they are being undertaken. EPA has capacity to undertake water sampling and undertake noise monitoring, and can work with Office of Environment & Heritage (OEH) to undertake monitoring on its behalf. Where no expertise is available 'in house' the EPA can engage experts to undertake or review monitoring programs.

#### **b) Should the EPA have its own resources to conduct independent data collection?**

The EPA considers that its current compliance and assurance program is comprehensive and enable it to determine whether licensees are complying with the monitoring conditions on their EPLs, and that the environmental data is reliable. Where necessary the EPA will utilise 'in-house' capabilities or engage consultants to conduct its own independent data collection.

As outlined previously, the EPA has air, water and noise specialists that can assist in undertaking independent data collection. Regional officers, through their day to day regulation of licensed premises, conduct site inspections which can include taking samples. These officers are trained in sampling techniques and are equipped to take samples. The EPA also has the capabilities of undertaking its own analysis of samples through the service level agreement with the OEH NATA accredited laboratory

**CONTAMINATED SITES: QUESTION 8****Question 8**

**According to the Auditor General's report of this year, which highlighted several significant concerns with the way the EPA identifies, manages and monitors contaminated land, there are 800 sites awaiting inspection. How many staff does the EPA have undertaking this work and how many more staff would it need to maintain a more reasonable investigation timeline and clear the current backlog?**

The Contaminated Sites section of the EPA has 21 equivalent full time (EFT) staff to cover:

- ongoing regulatory work
- administering the contaminated land Site Auditor system
- managing the contaminated land Environmental Trust programs
- preventative and educational programs; and
- legislative reform

To clear the backlog it would require the equivalent of one program manager and four full time staff for a period of five years.



**EPA GENERAL PROFILE: QUESTIONS 9, 10, 11****Question 9**

**How many regional offices does the EPA have and how many have closed since 2011?**

- a) Which offices have been closed and why?
- b) How many have they replaced?
- c) Has the impact of closures on environmental outcomes been monitored?

EPA has 13 offices (12 regional and 1 head office) and none have been closed since 2011.

**Question 10**

**Of the EPA budget in 2013/2014:**

- a) How much of the budget was for pollution prevention?

There is no specific budget line for 'pollution prevention', however each of the EPA's policy, program, regulatory, and support services contribute to pollution prevention either directly or indirectly.

**How much of the budget was for media?**

The EPA does not have a specific budget figure for media. The Public Affairs and Communications team provides information to the public and develops extensive materials as part of the EPA's broader stakeholder engagement, including communications and media materials about legislation, air and water quality, waste programs, incidents that the EPA handles or responds to, community programs, media training for the EPA's spokespeople, and web content. The budget (including staff wages) for the EPA Public Affairs and Communications team, is \$700,000.

In addition, stakeholder engagement is integrated into each of the EPA's regulatory, program and policy activities.

- b) How much of the budget was for environmental or scientific expertise?

See the response to Question 2 above.

**Question 11**

**Your submission states that the budget of the EPA has increased significantly over 2.5 years. By how much and how does this compare to the EPA budget 2.5 years ago?**

Budget	2011-12 \$000	2013-14 \$000	Increase \$000
Recurrent	117,214	137,669*	\$20,455
Capital	\$15	\$3,800	\$3,785

\* An additional \$8 million has also been allocated for air quality projects that are not a part of the recurrent budget.

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## NATIVE FOREST BIO-MATERIALS: QUESTION 12

### Question 12

**On page xix of your submission, you list the Protection of the Environment Operations (General) Amendment (Native Forest Bio-materials) Regulation 2013 as an 'EPA legislative reform since February 2012'. Does the EPA consider this a regulation that is beneficial for the protection of the environment?**

The Protection of the Environment Operations (General) Amendment (Native Forest Bio-materials) Regulation 2013 (the Amendment Regulation) amended clause 96 of the Protection of the Environment Operations (General) Regulation 2009 to exclude additional types of native forest bio-material from the definition of 'native forest bio-material,' in order to permit the burning of this material in electricity generating works with capacity to generate more than 200 kilowatts.

The Amendment Regulation does not reduce or remove any of the existing obligations of industry in the harvesting process in native forests and was also specifically designed to ensure there is no increase in logging intensity.

Only logging debris, pulpwood or invasive native species that have legal approval can be used to generate electricity. Waste from timber mills, plantations and other timber waste was already available to be used to generate electricity

The Government amended the Regulation following public consultation on this matter. The EPA administers the Regulation and as such, coordinated the legislative process for the amendments. The EPA is also responsible for regulating the implementation of these amendments. All electricity generators are required to keep records of native forest biomaterial they buy and use. The *Guidelines for the Burning of Bio-material: Record-keeping Requirements for Electricity Generating Facilities* were updated by the EPA and gazetted on 14 March 2014.

The Forestry Corporation of NSW are also required to report detailed information on logging intensity annually.

The EPA will conduct regular audits of these sources of information. This will include using satellite imagery where appropriate to help ensure there is no intensification of logging as a result of these changes.

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**ENVIRONMENT PROTECTION LICENCES: QUESTION 13****Question 13****Are allowable pollution standards and load limits set by negotiation with private companies or based on objective standards?**

The benchmark for EPA pollution standards and load limits are determined with reference to the best available science and any applicable statutory limits. Standards or load limits included in an EPL by the EPA are set with reference to these objective standards and, by necessity, the activity specific information provided to the EPA by the applicant as part of their application.

EPL licence conditions cannot be inconsistent with a condition for development consent issued by a consent authority. Therefore the EPA works with planning authorities at the development planning stage to advise on suitable environmental conditions.

The EPA's licensing functions are guided by section 45 of the POEO Act which sets out what it must consider when imposing conditions on those licences and includes:

- the pollution caused or likely to be caused,
- the impact of that pollution on the environment (and therefore cumulative impacts), and
- what measures can be taken to prevent or control the pollution and protect the environment from harm.

The best available science, where relevant, reflects the national consensus on scientific and technical issues:

- for water the principle document is the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) (ANZECC Guidelines)
- for air the major document is the NEPM for Ambient Air Quality (1998)
- for noise the EPA relies on publicly available guideline documents to inform decision making, including the NSW Industrial Noise Policy (2000), NSW Road Noise Policy (2011), and the Rail Infrastructure Noise Guidelines (2013)

As these policies are a reflection of best available science, they undergo periodic review and updating. For example, the EPA is playing a lead role in the current review of the Ambient Air Quality NEPM. The EPA's Industrial Noise Policy is currently undergoing review with public exhibition on this document expected in the near future.

For point-source air emissions, concentration limits are set out in the Protection of the Environment Operations (Clean Air) Regulation 2010. The EPA can impose limits more stringent than these limits, especially where available technology makes it reasonable to require compliance with stricter conditions.

An EPL can be used to manage or reduce point-source or fugitive/diffuse emissions through a number of mechanisms, including load limits, production limits, concentration limits, or general conditions such as timing of discharges. Licensees in specified industries are also subject to load-based licensing fees that are proportionate to the quantity and types of pollutants discharged and the conditions of the receiving environment. These fees operate as an economic incentive to the licensee to reduce pollutant loads. These fees are set out in the Protection of the Environment Operations (General) Regulation 2010 and are not discretionary.

**PENALTY NOTICES CAP: QUESTION 14****Question 14**

**Is there any cap on issuing penalty notices?**

**a) If yes, what is that cap and why does it exist?**

No.

There are policy considerations which inform whether it is appropriate to repeatedly issue penalty notices.

Penalty notices are designed to be an effective and efficient means to deal with minor breaches of environmental provisions which are not serious enough to warrant instituting Court proceedings. Penalty notices are also used in conjunction with other regulatory tools, especially when the circumstances of the case do not meet the criteria for prosecution. Detailed guidance on the issuing of penalty notices is set out in the EPA's Compliance Policy and Prosecution Guidelines.

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**INCIDENT AND COMPLAINT INVESTIGATION: QUESTIONS 15, 16****Question 15****What is the average length of investigations into pollution incidents?**

**How many ongoing incidents have been investigated for more than four years? What are these incidents?** The majority of offences under the *Protection of the Environment Operations Act 1997* (POEO Act) have a 1 year statute of limitation period, which means the EPA must commence a prosecution within one year of the offence being committed or the EPA becoming aware of the offence being committed. A much smaller category of the most serious POEO Act offences, Tier 1 offences, have a 3 year statute of limitation period.

On the basis of these legal constraints, the vast majority of EPA investigations by necessity must be completed within 1 year if prosecution is going to be an available option.

The average length of an investigation will be heavily dependent on a range of factors including: the circumstances and seriousness of the offence, availability of evidence, co-operation of suspects, extent to which technical expertise or expert evidence is required in the investigation, workload and competing priorities of the relevant region. Priority is given to the most serious incidents and investigations as quickly as possible. Not all investigations result in prosecution. The EPA has a range of regulatory responses available to it. See the [EPA Compliance Policy](#) for more information.

**a) What is the process of following up incident complaints?****b) How are incident complaints made over the phone or in person followed up?**

The EPA has a 24 hour incident response line and staff are on duty to act immediately for incident or emergency response 24 hours. The EPA coordinates with other State Emergency response agencies. The EPA public affairs unit is also available 24 hours.

EPA processes require that all incidents reported to the EPA be recorded in an incident response database (CIRAM). Incidents are generally reported via the Environment Line. These reports are recorded and progressed to the appropriate region or section officer. Follow up actions will vary according to the nature of the allegation.

If the EPA is not the appropriate regulatory authority, the complaint will be forwarded to the appropriate local council or State agency who is responsible.

Where an incident is reported by telephone, the Environment Line asks the caller if they would like a reference number to follow up progress of the report. Every email reporting an incident receives a reply including a reference number for further correspondence.

**c) How many incident complaints have been made since 2011?**

The EPA received 31,626 reports via its Environment Line between January 2011 and October 2014.

The majority of complaints to EPA come through Environment Line, as this is the advertised reporting line and staff are advised to direct complaints to this line so they are appropriately logged and allocated.

**i. How many incident complaints have been made over the phone since 2011?**

From January 2011 to October 2014 the Environment Line received 28,864 complaints via phone.

**ii. How many incident complaints have been made over email since 2011?**

From January 2011 to October 2014 the Environment Line received 2762 complaints via email.

**Question 16**

**How many complaints over EPA conduct has the EPA received over the last three financial years?**

Over the last three financial years (1 July 2011 to end October 2014) the EPA has received and investigated nine (9) allegations of improper conduct or behaviour of EPA staff.

Allegations are dealt with in accordance with the OEH guidance document 'Guidelines for Managing External Complaints and Allegations' (DEC, 2006).

**NOISE – FREIGHT TRAINS: QUESTIONS 17, 18, 19, 20, 21****Question 17**

**Does the EPA consider noise from freight trains, such as that endured by the community in Northern Sydney from the Epping to Thornleigh Track, to be measured upon human health grounds or annoyance grounds?**

The Epping to Thornleigh Third Track Project is classified as a State significant infrastructure project under Part 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and was approved by the Minister for Planning and Infrastructure on 17 July 2013 subject to a number of conditions, including specific noise mitigation measures.

The conditions require the proponent to meet the most conservative of either the (former) Interim **Guideline for the Assessment of Noise from Rail Infrastructure Projects (IGANRIP) (DECC, 2007)** or the Rail Infrastructure Noise Guideline (RING) (EPA, 2013).

The noise trigger levels in the RING reflect community reaction to rail noise based on social surveys to determine the level at which individuals are 'highly annoyed'. The RING does not seek to protect all individuals because reaction to noise varies significantly and it is not possible or practical to adopt noise levels that will ensure there are no noise impacts in the community. The RING trigger levels are designed to ensure that predicted noise levels are less than the level at which 10% of the population can be expected to be 'highly annoyed'. Appendix 5 of the RING provides a summary of the relevant research.

The RING acknowledges that excessive noise from transport can lead to sleep disturbance and other health impacts, and although the understanding of the link between noise and health effects has progressed in recent years, there is insufficient evidence at this time to adopt practical and justifiable health based noise trigger levels in NSW noise policies and guidelines.

The procedures for determining exposure-response relationships for annoyance are well established and the international body of practice on noise assessment is consistent with the approach taken in NSW.

**a) Given the impact that noise can have on human health, should it not be assessed on those grounds?**

Several studies have shown that excessive noise from transport modes can lead to sleep disturbance and other health impacts, not just annoyance (see Appendix 5 of the RING).

However, while research is making considerable advances towards building a whole picture of the relationship between noise exposure and human health, there is insufficient evidence at this time to adopt practical and justifiable health based noise trigger levels in NSW noise policies and guidelines.

**b) What are the noise licenses for major freight operators set at and do they currently exceed it?**

The EPA regulates rail system operators through environment protection licences that are issued to the under the *Protection of the Environment Operations Act 1997* to Australian Rail Track Corporation (ARTC), Sydney Trains, John Holland Rail and V/line. The freight operators are not licensed.

The rail system operators' licences do not set noise limits for freight operators on the rail network.

The two principal means of reducing the noise impact of the rail system through the existing licences are the noise criteria for new and substantially modified locomotives and pollution reduction programs.

The rail system operators' licences requires locomotives being introduced to the NSW network for the first time or locomotives which have been substantially modified since last being used on the NSW rail network, to be approved by the EPA before they can operate on the NSW network.

Approvals are based on specified noise criteria (presented in response to question 18) and more than 60% of the locomotives operating on the network have met these noise requirements.

Pollution Reduction Programs have included auditing the noise performance of locomotives on the network, mitigating the noise associated with wheel squeal and reviewing safety related practices that cause a noise nuisance.

### **Question 18**

#### **What is the limit in decibels that freight train operators have to comply with?**

The rail system operators' licences do not set noise limits for the operational rail network. However, the rail system operators' licences requires locomotives being introduced to the NSW network for the first time or locomotives which have been substantially modified since last being used on the NSW rail network, to be approved by the EPA before they can operate on the NSW network.

Approvals are based on specified noise criteria as follows:

<b>Operating Condition</b>	<b>Speed and Location of Measurement</b>	<b>Noise Limit - Microphone height: 1.5 metres above</b>
Idle with compressor radiator fans and air conditioning operating at maximum load occurring at idle	Stationary 15 metre contour	70 dB(A) Max
All other throttle settings under self load with compressor radiator fans and air conditioning operating	Stationary 15 metre contour	87 dB(A) Max 95 dB Linear Max
All service conditions	As per Australian Standard AS2377-2002 (Acoustics - Methods for the measurement of rail-bound vehicle noise) except as otherwise approved by the EPA	87 dB(A) Max 95 dB Linear Max

The licences also have requirements for locomotives to limit tonal and low frequency noise.

#### **c) Has the EPA measured noise along the Northern Line rail corridor?**

The EPA has not undertaken noise monitoring along the Northern Line rail corridor. Pollution Reduction Programs were included on Sydney Trains and ARTC's licences to audit the noise performance of freight locomotives on the NSW network. A pilot noise monitoring program was undertaken by Sydney Trains on the Northern Line rail corridor and by ARTC on the Hunter rail corridor to identify excessively noisy locomotives.

#### **d) Are freight operators compliant with noise standards?**

The rail system operators' licenses do not set noise limits for the operational rail network.

### **Question 19**

#### **Is sleep disturbance or potential sleep disturbance considered in setting freight rail noise limits?**

The rail system operators' licences do not set noise limits for the operational rail network.

However, the noise trigger levels in the Rail Infrastructure Noise Guideline (RING) apply to new or redeveloped rail projects. The noise trigger levels are derived from a socio-acoustic study investigating annoyance from rail noise, and because the study was designed to consider the exposure-response relationship of rail noise and annoyance, it is not appropriate to use this data to assess the likelihood of sleep disturbance.

The RING acknowledges that excessive noise from transport can lead to sleep disturbance and other health impacts, and although the understanding of the link between noise and health effects has progressed in recent years, there is insufficient evidence at this time to adopt practical and justifiable health based noise trigger levels in NSW noise policies and guidelines.



**Question 20****What is the effectiveness of track lubrication in reducing noise from 'wheel squeal'?**

The EPA has implemented a range of initiatives to help reduce the impacts of wheel squeal.

One of the Pollution Reduction Programs completed by RailCorp (now Sydney Trains) involved the installation of Top of Rail Friction Modifier Applicator units at key known 'wheel squeal' hot spots across their network. The EPA understands that Transport for NSW has recently completed an investigation of noise mitigating factors including these units. The EPA is currently seeking the outcomes of this work from Transport for NSW.

The EPA currently requires Sydney Trains to undertake 'Angle of Attack' monitoring at Beecroft to identify rolling stock at high risk of generating wheel squeal. Details of the identified rolling stock are provided to private freight operators so that the relevant rolling stock can be repaired or removed from the network. Sydney Trains is required to report to the EPA regularly on the works undertaken by freight operators on rolling stock identified by the monitoring. A similar previous program resulted in the rectification of over 400 defective wagons, helping to reduce the incidence of wheel squeal throughout the state.

**Question 21****Regarding the 'Review of the regulation of railway systems activities under the Protection of the Environment Operations Act 1997':****a) How were invitations for public submissions advertised?**

The invitation for public submissions regarding the 'Review of the regulation of railway systems activities under the Protection of the Environment Operations Act 1997' was advertised by:

- Advertisement in the NSW Government Gazette on 5 September 2014.
- Addition of the review to the NSW Government 'Have Your Say' webpage on 3 September 2014
- Inclusion of the review on the EPA website on 3 September 2014
- Advertisements placed in the Sydney Morning Herald and Daily Telegraph on 3 September 2014
- Letters sent to approximately 30 key non-rail industry stakeholders - including Cowan Rail Noise Steering Committee, Environmental Defender's Office, Hunter Community Environment Centre, Northern Rail Noise Committee, Port Botany Community Consultative Committee, Port Kembla Harbour Environment Group, Save Beecroft and Cheltenham Alliance, and Total Environment Centre - on 5 September 2014.
- Invitation for submissions at an industry stakeholder forum held on 3 September 2014.
- Media release announcing the review on 4 September 2014  
(<http://www.epa.nsw.gov.au/epamedia/EPAMedia14090401.htm>)

**b) Did the EPA invite public submissions from residents along the Epping to Thornleigh track project? i) If not, why?**

In addition to the general notifications for submission, the EPA wrote to the community group 'Save Beecroft Cheltenham Alliance'. In the lead up to the public exhibition period the EPA had also highlighted the pending review in written correspondence with individual community members raising concerns about the operational network.

The EPA considered that its consultation strategy of advertising the review in the key state papers, writing to key community and industry stakeholders and interest groups and issuing a media release advising of the review and inviting submissions was adequate. As of the closing date for submissions (8 October 2014) seven of the forty-four submissions received by the EPA related to the Epping to Thornleigh Track project indicating a high level of awareness and interest in the review by residents along the Epping to Thornleigh Track project.

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## WHITE BAY: QUESTIONS 22, 23, 24, 25, 26, 27, 28

### Question 22

#### **Does the White Bay site comply with noise and emissions standards in NSW?**

##### *Air*

The Department of Planning and Environment issued planning approval for the White Bay Cruise Passenger Terminal, which included air quality emission standards. The EPA understands that the criteria values listed in the Project Approval were adopted from the project EIS and that the criteria are taken from the EPA's Design Impact Assessment Criteria adopted in the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*.

The responsibility for regulating the compliance of the White Bay Cruise Passenger Terminal with the planning consent rests with the Department of Planning and Environment, not the EPA.

To date the monitoring reports prepared on behalf of Port Authority of NSW have not shown any breaches of the air quality standards listed in the planning consent.

While the air emissions from the cruise activities do not breach any of the planning requirements, it quickly became apparent to the EPA after operations of the cruise terminal commenced that the impacts from the activities on the local community were not acceptable, and the EPA acknowledges legitimate community concerns about air pollution and odour from the Terminal.

The EPA is investigating potential solutions, including stricter fuel quality requirements, shore to ship power, and on board controls such as scrubbers.

The EPA is also currently working with all Australian jurisdictions on a review of the air quality standards in the National Environment Protection (Ambient Air Quality) Measure. As part of this process, recent health evidence as well as standards used in other jurisdictions, including the WHO guidelines, are reviewed and taken into account. Review of particle standards is a top priority due to increasing evidence of significant health impacts. The next stage of the national review will consider sulphur dioxide, nitrogen dioxide and ozone standards.

##### *Noise*

Noise requirements for the Terminal are contained within the planning approval issued and regulated by the Department of Planning and Environment. The Department of Planning and Environment is responsible for enforcing compliance with, and responding to breaches of, the project conditions of approval.

Noise monitoring reports completed by the Port Authority of NSW in accordance with requirements of the planning consent indicate that on 32 occasions noise levels exceeded those set in the consent. These were primarily associated with ship engines and ventilation fans, as well as berthing and landside operations.

The Department of Planning and Environment is currently working directly with the Port Authority to address non-compliances with the conditions of approval for noise, as required by the conditions of approval. The Port Authority has developed a Noise Impact Mitigation Strategy which aims to further define the extent of noise exceedances, the general causes of the exceedances and provide recommendations for the identification and investigation of further reasonable and feasible noise mitigation options to meet the operational noise criteria in the Project Approval. Investigations to be undertaken by the Port Authority as part of the Strategy include noise barriers, shore power, architectural façade treatments and at-source noise control measures.

The EPA acknowledges community concerns regarding the amenity and health impacts of noise from the terminal, and is working with the Department of Planning and Environment and Port Authority of NSW to find solutions, including providing advice to the Department of Planning and Environment to address issues around noise management

**Question 23**

**Has the EPA issued any penalties to any company or agency related to noise at the White Bay terminal?**

- a) If yes, how many fines for noise infringement have been issued and how many breaches of noise have been detected?**

The primary tool for regulating noise pollution from ships at the White Bay Cruise Passenger Terminal is the planning consent. The Department of Planning and Environment is responsible for enforcing compliance with, and responding to breaches of, the project conditions of approval for the White Bay Cruise Passenger Terminal through the Environmental Planning and Assessment Act 1979.

**Question 24**

**What are the health implications for residents exposed to higher sulphur content fuel? What health effects can they expect to experience as compared to residents exposed to lower sulphur fuel?**

This question is best directed to NSW Health. The EPA has been working with NSW Health to respond to community concerns about health impacts from emissions to air.

The EPA, along with NSW Health, has established regular interagency meetings regarding the terminal's operations. These meetings with Roads and Maritime Services (RMS), the Department of Planning and Environment, Port Authority and Leichhardt Council commenced in December 2013. In April 2014, the regular interagency group was expanded to include community representatives.

NSW Health has also provided written responses to questions on health impacts. The EPA is also assisting NSW Health to draft a community information sheet regarding the terminal and health concerns.

**Question 25**

**In light of the upcoming peak cruise season, has the EPA lobbied the Department of Planning and Environment to revise the conditions of the project approval to address the conditions on the ground and implement strategies to lessen the impact on the surrounding community?**

The Department of Planning and Environment is responsible for the planning consent for the White Bay Cruise Terminal. Questions regarding the application of the Environmental Planning and Assessment Act 1979 should be directed to the Department of Planning and Environment as the consent authority.

The EPA has been working with the Department of Planning and Environment and the Port Authority of NSW to find solutions to the issues at the White Bay Cruise Passenger Terminal.

It is the EPA's understanding that the *Environmental Planning and Assessment Act 1979* does not permit modifications to conditions of approval once a planning approval is granted, unless a modification application is made by the proponent. Further questions regarding the application of the *Environmental Planning and Assessment Act 1979* should be directed to the Department of Planning and Environment as the consent authority for the White Bay Cruise Passenger Terminal.

**Question 26**

**What noise or air pollution mitigation measures have been put in place by the EPA or ordered by the EPA in the last 1.5 years of operation of the White Bay Cruise ship terminal?**

The Department of Planning and Environment, and not the EPA, is responsible for regulation and enforcement of any breaches under the planning consent.

The Department of Planning and Environment is currently working directly with the Port Authority to address non-compliances with the conditions of approval for noise, as required by the conditions of approval. The EPA is providing advice to the Department of Planning and Environment.

The Port Authority has developed a Noise Impact Mitigation Strategy which aims to further define the extent of noise exceedances, the general causes of the exceedances and provide recommendations for the identification and investigation of further reasonable and feasible noise mitigation options to meet the operational noise criteria in the Project Approval.

Investigations to be undertaken by the Port Authority as part of the Strategy include noise barriers, shore power, architectural façade treatments and at-source noise control measures.

The activities at the White Bay Cruise Terminal comply with the air quality requirements of the planning consent.

While the air emissions from the cruise activities do not breach the air quality requirements in the planning consent, it quickly became apparent to the EPA after operations of the cruise terminal commenced that the impacts from the activities on the local community were not acceptable. The EPA acknowledges legitimate community concerns about air pollution and odour from the Terminal.

Recognising the significance of the issue and that the EPA is best placed within the government to assist, the EPA has stepped up to take a lead role to broker solutions between the community, the industry, and other government agencies. The EPA has actively stepped into this lead role because of the skills and expertise the EPA possesses, particularly within regards to air and noise impacts.

The EPA is working on two fronts with regard to addressing air emissions from cruise ships – a specific focus on cruise ships in Sydney Harbour and a broader focus on the shipping industry generally.

The EPA has been working with the community, the local council, relevant NSW Government agencies, industry and technical specialists through a number of forums to progress various lines of investigation and develop workable solutions.

The Australian Government has responsibilities for regulating transport fuel and shipping but has not taken action beyond the internationally agreed levels stipulated in the International Convention for the Prevention of Pollution from Ships (MARPOL). The current MARPOL standard for fuel sulphur content is 3.5% sulphur, with this limit dropping to 0.5% on 31 December 2019.

The EPA does not consider this timetable acceptable and is seeking State based changes to protect the people of NSW. NSW is the only State in Australia seeking stronger controls than those set out in MARPOL.

Some of the options under investigation include a stricter fuel sulphur content limit for shipping in NSW waters; the use of improved on-board air filter systems (scrubbers); and the introduction of shore-based power.

In relation to broader shipping the EPA has started discussions with the shipping industry to reduce emissions from ships in the Greater Metropolitan Region including the ports of Newcastle and Port Kemble. As a first step, the EPA met with key shipping representatives in August to explore the options for adopting world best practice in reducing emissions from cruise ships in Sydney Harbour. A second meeting is scheduled to be held on 6 November 2014.

The EPA is currently developing a Diesel Emission Management Strategy, which will set out diesel emission actions and timeframes and is expected to be in place by the end of 2014. The Strategy will explore options for Sydney Harbour, as well as exploring options for the broader shipping industry in the Greater Metropolitan Region. To this end there will be extensive consultation with the shipping industry over the coming months.

The EPA has engaged the services of Det Norske Veritas (Australia) Pty Ltd (DNVGL) international shipping consultancy to assess the technical feasibility, costs and emission impacts of adopting emission reduction measures for ships at major ports in the NSW Greater Metropolitan Area. The project undertaken by DNVG includes:

- a stocktake and evaluation of all measures used nationally and internationally to reduce ship emissions. These include broad policy instruments, economic instruments, management practices, technological options and voluntary measures; and

- an assessment of the logistical and technical feasibility of adopting lower sulfur fuel (including fuel switching), seawater scrubbers, vessel speed reduction and shore side power for ships.

The EPA recognises that permanent solutions are likely to take some time. Unfortunately there are no quick fixes. The EPA is working with other government agencies to investigate if there are any interim solutions that can be found. This includes determining if the poorest performing ships could be moved away from White Bay.

The EPA has held discussions with the Port Authority of NSW about the possibility of relocating poor performing ships to a buoy within the Harbour. The Port Authority has indicated that this strategy is not feasible due to security issues and requirements under Commonwealth legislation; Customs and Border Protection Services requirements; logistical constraints with provisioning and cruise operations; safety issues; and harbour mooring requirements.

### **Question 27**

**What could be done to assist the EPA to gain the cruise ship industry's agreement to use low-sulfur fuel?**

The EPA has started discussions with the shipping industry to reduce emissions from ships in the Greater Metropolitan Region. As a first step, the EPA met with key shipping representatives in August to explore the options for adopting world best practice in reducing emissions from cruise ships in Sydney Harbour. A second meeting is scheduled to be held on 6 November 2014.

The EPA is currently developing a Diesel Emission Management Strategy, which will set out diesel emission actions and timeframes and will be in place by the end of 2014. The Strategy will explore options for Sydney Harbour, as well as exploring options for the broader shipping industry in the Greater Metropolitan Region. To this end there will be extensive consultation with the shipping industry over the coming months.

The EPA has recently engaged an international expert on shipping engineering (Det Norske Veritas (Australia) Pty Ltd) to assist the EPA in its investigations. See Question 26.

Regardless of the solution, the EPA considers it essential that the shipping industry is involved in all discussions.

The EPA considers that it would be beneficial for the Commonwealth Government to support any State-based action.

### **Question 28**

**Given the current limitations on the EPA to regulate the activities of ships at White Bay cruise terminal and shipping operations in general, what steps have the EPA undertaken to ensure that breaches can be adequately managed with the NSW regulatory framework?**

The Department of Planning and Environment, and not the EPA, is responsible for regulation and enforcement of any breaches under the planning consent.

The EPA has taken a lead role with other government agencies in finding a way forward. The requirements for regulation and enforcement will be considered during the course of the investigation into any options under consideration.

For air emissions, the EPA is looking at changes to the Protection of the Environment Operations (Clean Air) Regulation 2010 to introduce requirements for lower sulfur fuel.

## BOTANY: QUESTION 29

### Question 29

**What is the EPA's official position on data gathered by Hg Recoveries Pty Ltd and does it accept or not accept it?**

This response pertains to the evidence given at the Inquiry by Mr Andrew Helps of Hg Recoveries relating to mercury. Part 13.2.2 of Chapter 13 of the EPA submission details the work undertaken by the EPA in relation to mercury on the Orica site. A fuller account of the involvement of Hg Recoveries relating to the Botany Industrial Park is set out in Chapters 13 and 14 of the EPA submission.

The EPA strongly disputes the ambient mercury testing results and interpretation of data provided by Hg Recoveries Pty Ltd to the EPA.

In response to Mr Helps' claims about mercury vapour levels, the EPA engaged Access Macquarie Limited (Macquarie University), Department of Environment and Geography, to undertake ambient air monitoring for mercury near Orica's premises at the Botany Industrial Park in February 2014. The results obtained by Access Macquarie Limited so significantly varied from the results of Hg Recoveries that it indicated serious errors in the sampling process conducted by Hg Recoveries.

Access Macquarie independently undertook its own sampling. The mercury concentration results of Access Macquarie's monitoring were in the order of one thousand times **less** than those claimed by Hg Recoveries. Access Macquarie's results showed very small concentrations of mercury, which are significantly below the World Health Organisation recommendation for a tolerable daily level in air of 0.2µg/m<sup>3</sup> (0.2 micrograms per cubic metre or 200 nanograms per cubic metre ng/m<sup>3</sup>) for elemental mercury vapour. The results were also comparable to the levels recorded by Orica's equipment at the boundary of the Botany Industrial Park – a condition of the environment protection license.

With respect to soil sampling and testing by Mr Helps at Hillsdale, he advised the EPA that he had undertaken sampling near the Botany Industrial Park and reported a chlorine spike which he alleged was from hexachlorobenzene.

Mr Helps proposed that the EPA sign a contract with HG Recoveries to conduct further testing.

The information provided by Mr Helps gave no clear indication of the sampling locations and methodology followed and initially he would not release full details about his sampling techniques to the EPA or the precise locations. After a number of interactions with Mr Helps seeking these details and four days after the initial information, he provided sufficient information for the EPA to commence an investigation.

Chapter 14 of the EPA's submission provides a full account of the EPA's response to Mr Help's claims.

The EPA posted a [summary of its findings](#) on its website with regard to HCBs, the issue raised by Mr Helps, on 16 May. Note that version 4 of the report issued on 17 May did not change the conclusions in the summary.

In short, the full results for the EPA sampling showed:

- In relation to HCB and mercury, the levels detected in the samples were below the HILs that require further investigation and therefore no further action was required.
- In relation to PCB, the levels detected in the samples were slightly above the HIL on the Sydney Water Easement adjacent to Denison Street for three of the sample locations (SS01, SS04, SS05).

In response to these slightly elevated PCB levels, the EPA referred the results to:

- NSW Health who, after assessing all of the results and site information for the easement, concluded that these PCB levels were not a health concern

- Sydney Water on 8 May 2013 (as the landholder of the easement where sampling took place) and advised it of the finding and requiring Sydney Water to engage a contractor to undertake additional sampling of the easement.

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## AIR QUALITY: QUESTIONS 30, 31

### Question 30

**Is there any recommended safe level for PM 2.5 ingestion? a) Would any incident that elevated PM 2.5 levels at all in the air have some impact on the health of people**

Ingestion refers to the consumption of a substance by mouth into the gastrointestinal tract. PM<sub>2.5</sub> can be ingested via saliva and food, however, the critical pathway for human exposure to PM<sub>2.5</sub> is inhalation.

In its most recent review of evidence on health aspects of air pollution, the World Health Organisation (2013) notes that the weight of evidence from epidemiological studies show:

- There is an association between exposure to PM<sub>2.5</sub> and respiratory and cardiovascular health effects, down to very low concentrations of PM<sub>2.5</sub>.
- There is no evidence of a concentration-effect threshold below which no one would be affected i.e. some people will experience effects even at very low concentrations.

Given the absence of evidence of a concentration-effect threshold, any reductions in exposure to PM<sub>2.5</sub> concentrations will have public health benefits.

This issue has been comprehensively dealt with in the review of *the National Environment Protection (Ambient Air Quality) Measure* (the NEPM). The EPA has played a central role by chairing the review and advocating for changes to the national air quality standards to reflect the health impacts of smaller particles. The [Impact Statement for the Review](#) (which included a draft varied NEPM) was released in July 2014, the period for public submissions on this document closed on 10 October 2014 and a decision on the review is expected in early 2015.

### Question 31

**What actions is the EPA undertaking to limit PM 2.5 output from wood heaters in NSW?**

**a) Is the EPA considering phasing out and banning wood heaters**

**b) Has the EPA evaluated the effectiveness of the Woodsmoke Reduction Program?**

The EPA uses a number of instruments to manage wood smoke in NSW such as:

- regulating the sale and installation of wood heaters,
- providing education materials on the health risks of wood smoke and the proper operation of wood heaters and
- periodically running the Wood Smoke Reduction Program.

Over the winters of 2013 and 2014 the EPA conducted a wood smoke reduction program, with the allocation of over \$1 million in grants for NSW councils. Eligible programs included education initiatives, local enforcement programs and targeted rebates to remove old heaters. Up to \$60,000 per council was available per year for individual councils and up to \$100,000 for regional organisations of councils (ROC). One ROC and 16 councils participated in the program in 2013 and 4 ROCs and 17 councils were allocated grants in 2014. (EPA Sub p84)

The EPA continues to explore new regulatory and non-regulatory measures to control wood smoke and any new policies are subject to community consultation. The EPA is not considering phasing out and banning wood heaters state-wide. Through previous consultation the EPA has found that a state-wide ban is unlikely to be supported by the wider community as wood heaters are still a viable and cost-efficient form of heating for many people, particularly in rural areas and areas without access to the gas reticulation network.

The current Wood Smoke Reduction Program will be assessed upon its completion in accordance with the EPA's Grants Policy.

<http://www.epa.nsw.gov.au/legislation/140572EPAGrantsPolicy.htm>



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**PILLIGA: QUESTIONS 32, 33, 34****Question 32**

**The EPA submission noted that Santos detected elevated levels of heavy metals around the Bibblewindi ponds in March 2013, but the Wilderness Society submission contends that the EPA was notified about pond leaks as early as May 2012. Was any elevated heavy metal levels in groundwater identified by the EPA or Santos between that period? Was testing undertaken in that time?**

On 18 May 2012 the EPA was provided with a copy of a letter that was sent from Santos to the then Department of Trade and Investment, Regional Infrastructure and Services. This letter explained that Santos had found an elevated total dissolved solids (TDS) level in a piezometer adjacent to Pond 3 at Bibblewindi and confirmed that it had undertaken further investigations to assess the integrity of the pond. These further investigations showed that there appeared to be a direct connection between the saline water in the pond and the soil beneath the liner.

The Department of Trade and Investment, Regional Infrastructure and Services regulated the site through their titles and approvals issued under the Petroleum (Onshore) Act 1991. At the time the EPA received the letter the EPA was not the regulatory authority for the activity.

No elevated levels of heavy metals in groundwater were identified by the EPA between the period May 2012 and March 2013. On 26 March 2013 Santos notified the EPA of elevated levels it had detected. On 28 March 2013 the EPA served Santos with a Notice to Provide Information and/or Records. On 10 April 2013 the EPA received a response to that notice from Santos. Included within that response was a copy of groundwater sampling results dated 29 February 2012 for two groundwater bores located to the north of the Bibblewindi Pond 3. The results showed that one of the bores detected slightly elevated levels of TDS, EC and uranium. This bore is located in the same area where the elevated levels were detected and reported in March 2013.

**Question 33**

**Did the EPA ever undertake independent testing of the site?**

No.

**Question 34**

**Can you clarify for how long the Bibblewindi pond was leaking until it was fixed?**

The EPA is not aware of when the Bibblewindi Pond 3 first started leaking.

As a result of the EPA investigation, Santos is required to undertake remediation works at the site through a pollution reduction program. This pollution reduction program requires all liquid and sludge to be removed from Pond 3 by 31 December 2014. The EPA inspected the site on 15 October 2014 and confirmed that all liquid and sludge has been removed from Pond 3 at Bibblewindi.

## HEXHAM SWAMPS: QUESTION 35

### Question 35

**Does the EPA consider the Hexham Swamps at risk of contamination from the adjoining Aurizon and Australian Rail Track Corporation facility?**

There is some potential for the Hexham swamps to be at risk from contamination from the adjoining Aurizon and Australian Rail track Corporation facility. Historically many of the areas in and around the Hexham Swamp were used as a colliery and coal wash. These activities left large areas with varying levels of historic contamination. These are legacy issues which affect many areas in Newcastle.

Some areas in Hexham which currently make up three licensed premises of Leighton, Aurizon and Brancourts, an easement for Hunter Water Corporation water pipeline and a Jemena gas pipeline are conducting activities on impacted areas of the former colliery site. The new development for the Hexham relief roads (Leighton) and rail support facility (Aurizon) are conducting construction activities within some of the areas that have been formally notified to the Environment Protection Authority (EPA) in accordance with section 60 of the *Contaminated Land Management Act 1997* (CLM Act).

**a) Why are the Aurizon and Australian Rail Track Corporation lands not considered contaminated under the Contaminated Land Management Act?**

For those areas notified under section 60 of the CLM Act, the EPA assessed the contamination and determined that 'there is no reason to believe the land is significantly contaminated' the trigger for EPA regulation under the CLM Act) for the following reasons:

- large volumes of coal remain on the site however only isolated detections of contamination have been encountered in the coal fill;
- heavy metals and an acidic pH has been encountered in waters at concentrations exceeding the ANZECC/ARMCANZ trigger values, however this may be contributed to by acid sulphate soils in the region.

However, while the contamination of the site is not of a level requiring management under the CLM Act, it still has some level of contamination. The EPA protects the Hexham swamps from contamination through conditions on Environment Protection Licences (EPLs) for the sites (see question b) below).

**b) What actions is the EPA undertaking to protect the Hexham swamps from contamination?**

Through the EPLs for the sites, the EPA requires the following management works to be undertaken:

- Any uncovered coal tailings should be stabilised to prevent mobilisation by wind/ waters;
- The coal tailings should be assessed for stability in relation to the 100 year average (flood) recurrence interval and any areas that have the potential to mobilise in flood conditions should be stabilised;
- a former fuel storage area should be decommissioned, tanks removed and soil validated;
- that the current practice of irrigating the site with treated effluent should be reviewed with the objective of identifying options of minimising the groundwater recharge through infiltration and the generation of any leachate;
- a surface and groundwater monitoring programme should be implemented; and,
- acid sulphate soils should be appropriately managed during any disturbance/ development.

Due to flooding issues in the area both Leighton and Aurizon have been required to excavate soil and to intercept groundwater. The groundwater in the area has some elevated levels of contaminants above normal background and the EPA requires that both Leighton and Aurizon manage the dewatering of this through EPLs. Each have specific requirements in relation to

dewatering groundwater and treating it before discharge, using a package water treatment plant (WTP), or reusing it onsite to limit impacts on the receiving waters. As part of the licence, Aurizon also has a special condition which requires them to fill in a large former colliery waterbody that is contributing to recharging shallow groundwater from a coal chitter stockpile that was a legacy of the former use. This will assist in decreasing leaching of metals into the groundwater from the former coal stockpile area. The EPA is also reviewing the suitability of land for irrigation purposes for an adjacent premises, Brancourts, in order to ascertain whether the soil is capable of continuing to receive treated effluent. In order to facilitate this Brancourts has a Pollution Reduction Program in their EPL that requires investigation into their wastewater effluent application and soil capability.

The development of the sites has allowed the EPA to impose conditions that will assist in the longer term decrease of current sources of groundwater contamination, such as filling in of the dam or groundwater recharge area. The development consents for these projects have given the EPA the ability to require an assessment of the contamination of the site and remediation of contamination hotspots, reviewed by a site auditor. EPA has also imposed regular and extensive surface and groundwater monitoring on each licensee

## MARTINS CREEK QUARRY: QUESTION 36

### **Question 36**

#### **Why did the EPA reject Dungog Shire Council's complaints about the Martins Creek Quarry?**

The EPA does not agree with Dungog Shire Council that the 2007 variation of licence for Martins Creek Quarry was incorrectly issued. At the request of Dungog Council, the EPA has reviewed its 2007 decision a number of times over the years and on each occasion formed the view the licence variation was conducted in accordance with the provisions of the Protection of the Environment Operations Act 1997.

The EPA's view is that the 2007 licence variation was properly issued as Dungog Council has previously issued a consent without an extraction limit. The EPA is of the view it had no legal grounds to decline the 2007 licence variation application.

Martins Creek Quarry is a contentious quarry that operates under 'continuing use' rights and a consent issued by Dungog Shire Council in 1990. The Council believes that the licensee is exceeding production limits; however the consent issued by Council does not have a limit on production.

Dungog Shire Council is of the view that the terms of the development consent imply that production quantities referred to in the EIS form part of the development consent. Nonetheless, the Council has chosen not to take regulatory action under the consent issued by it.

Since a new owner, Buttai Gravel (part of the Daracon Group), took over the quarry in 2013 production has increased substantially. Large numbers of trucks from the quarry travel through local villages, most notably Paterson.

Council has been critical of a 2007 EPA licence variation that placed the quarry into the next 'fee based activity scale'. This is a provision of the license that determines the license administration fee paid by the licensee. Council believes this variation has allowed a higher level of production than is allowed under the consent or 'continuing use rights'.

#### ***Consistency of 2007 licence variation with development consent entitlements***

The planning process under which the development consent was issued and the environment protection licensing process are two separate processes administered by Council (in this case) and the EPA respectively.

Martins Creek Quarry operates under 'continuing use' rights and a consent issued by Council in 1990. Under this consent there was no reference to and EIS, nor did the consent impose a production limit. However, Dungog Shire Council has stated it has legal advice that the consent limits the quarry to a production of 300,000 tonnes per annum. Dungog Shire Council has also cited a development consent condition which requires 70 per cent of product from the quarry to be dispatched by rail.

Dungog Shire Council has stated on a number of occasions over recent years that both conditions are being breached by a significant volume. However, Council has chosen not to take enforcement action for breach of development consent despite being of the view it is being breached. The EPA cannot take action on Council's behalf for breach of development consent conditions.

Quarry operators who hold an environment protection licence (EPL) issued by the EPA pay licensing fees based on the size of their operations. The EPL sets an upper limit for extraction/production which establishes the license fee. It is an offence to exceed this limit.

The previous quarry operator applied to the EPA in January 2007 to be placed into the next 'fee based activity scale'. This application was necessary so that the operator was paying the correct licence fee relative to the amount of material it was extracting.

The EPA thoroughly checked the consent for the quarry and formed the view Dungog Council had issued a consent which had no production limits. The EPA issued the licence variation to

place the quarry into the next 'fee based activity scale.' The EPA believes it had no legal grounds to decline the application as the consent issued by Council had no limit on production.

***Was the EPA in error in not taking the 1990 EIS (and production volumes referred to within the EIS) into account in the decision to vary the licence?***

The EPA's decision in 2007 to grant an increase in the licensed fee based activity scale was based on information the licensee provided at the time of making the application, which included a copy of the development consent issued by Council for Lots 5 and 6. The development consent did not specify any limit on the extraction of quarried material, nor did it reference the EIS. The EPA did not consider the EIS when assessing this application.

There is case law that if information is not referenced in the development consent, the EIS statements are not necessarily binding in the consent. The EPA is of the view it had no legal grounds to decline the application.

***Accuracy of assertions by Dungog Shire Council that 'it is clear that at all material times the EPA had in its possession the EIS lodged with the relevant Application for Lots 5 and 6....'***

The statement that the EPA had possession of the EIS at all times is not correct. A review of the file shows a CD containing the EIS was sent to the EPA by Dungog Council on 28 September 2008, around 18 months after the licence variation was issued. The Council has been provided with documents under GIPA evidencing this.

***Conformity with public consultation requirements***

Section 58(6) of the *Protection of the Environment Operations Act 1997* requires the EPA to invite and consider public submissions if a variation to a licence will authorise a significant increase in environmental impact, unless the development consent has already been the subject of a public consultation process.

In this case, the development application was the subject of an environmental assessment and public consultation process under the *Environmental Planning and Assessment Act 1979* prior to the consent being issued by Dungog Shire Council. It was therefore considered unnecessary for the EPA to invite and consider public submissions.

**a) Has the Martin's Creek quarry exceeded its Environmental Protection License conditions for production limits in the last five years? If yes, please provide the production levels and license condition for each year?**

The EPA is not aware of any exceedances of production limits at the Martins Creek Quarry over the last five years.

**b) Has the Martin Creek Quarry ever breached its environmental protection license?**  
Yes.

**i) If yes, what action did the EPA undertake?**

The following table of incidents and EPA responses are based on a review of annual returns submitted by the licensee for the past ten years, together with observations and investigations conducted in 2014.

Licensing period	Incident
30/6/2012 to 29/11/2012	<p>Statistical noise limits exceeded during licensing period prior to the licence being transferred to the current licensee.</p> <p>The licence has a requirement that the noise level from blasting activities must never exceed 120dB (Lin Peak). The licence also has a 'statistical noise limit' for blasting that requires over a licensing period no more than 5% of blasts may be in the range of 115dB to 120 dB (Lin Peak). Due to shorter licensing period and resulting reduced number of blasts over that period, more than 5% of blasts exceeded 115dB (Lin Peak), meaning there was a breach of the statistical limit of 5 %. No blasts exceeded the absolute limit of 120 dB (Lin Peak).</p>

Licensing period	Incident
	In response the EPA issued an Official Caution to the then licensee and provided a copy of the letter to the new licensee so that it was aware of this non-compliance history and the EPA's expectation of full compliance with blast limits.
30/11/2012 – 29/6/2013	<p>The concentration limit for Total Suspended Solids of 50 mg/L was exceeded (level recorded 57 mg/L).</p> <p>The Licensee advised the concentration limit was exceeded due to a calibration issue with the water quality meter used. The EPA issued an advisory letter noting it is a breach of license condition O2 not to maintain all equipment in a proper and efficient manner. The EPA letter noted the EPA expects the licensee to take the necessary action to ensure breaches with regard to discharge limits do not occur and all equipment is properly maintained and operated at all times.</p>
30/6/2013 - 29/6/2014	<ul style="list-style-type: none"> <li>• The EPA conducted late night and early morning unannounced observations and inspections in April 2014. This resulted in:</li> <li>• penalty notice issued for breaching the condition of licence in relation to hours of operation (L6.2)</li> <li>• penalty notice issued for breaching the condition of licence in relation to sediment and erosion controls (O1.1)</li> <li>• 'Show cause' letter issued for not supplying a blast monitoring report with the 2013-2014 Annual Return. The EPA is currently considering this matter.</li> </ul>
30/6/2014 to 29/11/2015	<ul style="list-style-type: none"> <li>• EPA inspection of 17 July 2014 identified alleged issues with erosion and sediment controls – subject to current EPA investigation.</li> <li>• EPA inspection of 12 August 2014 identified alleged issues with erosion and sediment controls – subject to current EPA investigation.</li> </ul>

**Note:**

Licensing period 30/6/2010 to 29/2/2011 - On 7 March 2011, a blast exceeded the noise limit of 120 dB (Lin Peak). The level recorded was 120.6 dB (Lin Peak). This was a very minor exceedance of the limit. When noise levels are recorded that are very close to the limit and due to the potential for slight instrument error, the Industrial Noise Policy dictates these should not be deemed a non-compliance with the relevant noise limit condition.

## **SANDY POINT QUARRY: QUESTION 37**

### **Question 37**

**Has the EPA audited the production levels specified in the environmental protection license for the Sandy Point Quarry? a) How many penalty notices have been issued to the Sandy Point quarry and for what reason?**

The EPA is currently conducting a criminal investigation into the levels of production at the Sandy Point Quarry over recent years. As that investigation has not been finalised, the EPA cannot further comment on the matter.

Since the current operator Benedict Industries took control of the quarry, the EPA has issued the company with two penalty notices. The first was for a breach of s120 of the *Protection of the Environment Operations Act 1997* for water pollution caused by the discharge of turbid water from the quarry on 20 February 2012. The second was for a breach of s 48 on 18 June 2012 for the storage of approximately 4000 tonnes of glass fines without being authorised by its licence.

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## MALABAR WASTE WATER TREATMENT PLANT: QUESTION 38

### **Question 38**

**Has the EPA investigated the Malabar Waste Water Treatment Plant for license breaches or pollution offences?**

Yes. The EPA actively regulates the Malabar Waste Water Treatment Plant (WWTP) for compliance with licence conditions and environment protection legislation. Breaches of licence conditions for the Malabar Environment Protection Licence (EPL) relate primarily to the extensive reticulation network that drains to the WWTP, rather than the WWTP itself. In addition to ongoing auditing and responses to incidents and complaints, overall compliance with the EPL is reviewed annually through the annual license return process.

**a) If yes, what have these investigations been for and have any penalties been issued?**

- On 19 July 2013 an incident occurred in which approximately ten tonnes of biosolids were spilled inside the premises due to equipment failure. The EPA received five community complaints in relation to the incident. Randwick City Council and the local Member of Parliament also received complaints in relation to the incident. In January 2014, the EPA issued Sydney Water with a \$1500 Penalty Notice.
- In September 2013 a leak occurred from the Malabar Waste Water Treatment Plant and effluent was discharged into the ocean at Malabar Headland. The EPA has investigated the matter and has commenced legal proceedings for 2 offences in the Land and Environment Court.
- On 23 October 2013 an incident occurred in which failure of conveyer equipment caused a spill of approximately five tonnes of biosolids onto open ground outside a building at the premises, resulting in several odour complaints from the community. In March 2014, the EPA issued Sydney Water with a \$1500 Penalty Notice.

**b) Is the EPA aware of odour issues resulting from the Malabar Waste Water Treatment Plant and what actions has the EPA taken to address this?**

Yes. The EPA responded to complaints relating to odour at the Malabar WWTP and undertook a number of inspections of the premises during the latter stages of 2013. Investigations by the EPA revealed sufficient evidence of breaches of section 129(3) of the *Protection of the Environment Operations Act 1997* (POEO Act) for emissions of odours from premises licenced for scheduled activities. See response to Question 38.a. above.

The EPA investigates and takes regulatory action in relation to individual odour complaints at the time of receipt. Compliance data is also used to identify trends where systems may be experiencing ongoing odour issues and where system improvements may be required.

The EPA worked with Sydney Water to develop and implement the Odour Management Project at Malabar WWTP to reduce the risk of odours impacting the surrounding community. The project was completed in July 2013 and included:

- replacing the six odour scrubbers
- installing a manifold connected to the six odour scrubbers
- installing a ventilation stack that releases treated air from the odour scrubbers
- upgrading associated mechanical, electrical and control systems.

At the request of the EPA, Sydney Water undertook a Voluntary Audit at the Malabar WWTP in January 2014. The audit was commissioned by Sydney Water to be undertaken by an independent external consultant (Larry Weiss, QEM Consulting) in accordance with Part 6.3 of the POEO Act 1997. The results of the audit were presented to EPA in February 2014. The EPA was satisfied with the findings and conclusions of this report. The audit findings have led to a range of improvements in the way Sydney Water operates the plant to reduce the potential for odour emissions.

The EPA is aware of major upgrade works currently being undertaken at the Malabar WWTP. Sydney Water has actions planned to prevent a recurrence of the biosolids spill incidents, including a \$115 million plant upgrade scheduled for completion in 2017. These works are



expected to further control any odours being emitted from the WWTP and include a motion sensor alarm to address conveyor breaks that are not obvious from camera surveillance (works complete) and a major biosolids plant refit under capital works (completion due in 2017).

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## KINCUMBER QUARRY: QUESTION 39

### Question 39

**Is the EPA aware of allegations that an illegal recycling operation was operating at Kincumber Quarry? a) If yes, when did the EPA become aware of those allegations?**

Yes, the EPA is aware of allegations of potentially unauthorised recycling of building wastes in the Quarry.

**b) What actions did the EPA undertake, including investigation of the allegations?**

The history of the EPA's actions in relating to the Kincumber quarry dates from 2003:

- In 2003 the EPA observed waste on-site and wrote to the licensee (Rexdor Pty Ltd) and advised they would need a variation to development consent to allow such a practice to occur. The licensee advised they would submit a development application to continue to operate a recycling facility at the premises.
- In 2004 when waste was still observed on-site the EPA arranged a joint inspection with the consent authority, Gosford City Council, for action. The EPA issued a clean-up notice in 2004 for hazardous waste and liquids. The recycling waste was not addressed by the EPA as this needed to be regulated by Council (these activities were not scheduled under the Protection of the Environment Operations Act at that time and therefore did not require a license from the EPA. Council was the regulator of the site).
- In 2005 the EPA issued a clean-up notice and penalty notice in relation to the hazardous waste and warned the company in relation to waste handling procedures.
- In 2008 the EPA observed waste on-site and raised this issue with the licensee. The licensee's solicitor replied that Rexdor Pty Ltd was processing waste under "existing use rights". The EPA was advised by Council they were drafting orders under the Environmental Planning and Assessment Act to force the company to cease recycling activities on the site. The Company was advised by the EPA that the level of waste operations would need a licence however as no consent existed (as council rejected existing use rights contention) no licence could be issued.
- In 2010 the EPA again raised the issue of the waste operations on-site with Gosford City Council and requested the council take all necessary action re the waste crushing and grinding on the site. At the time the EPA was unable to determine if the amount of waste on-site was above the schedule limit.
- In 2013 the EPA conducted an inspection of the premises and observed a large amount of various waste products at the facility. In response to this observation on 19 September 2013 the EPA issued a Clean-Up Notice directing Rexdor Pty Ltd to immediately cease receiving waste at the premises and to remove all waste from the premises by 6 December 2013.
- The EPA conducted a number of inspections at the premises throughout 2013 and 2014, monitoring Rexdor's progress towards compliance with the Clean-up Notice. In consultation with the EPA, Rexdor was permitted variations to the clean-up notice to allow more time to remove the remaining waste on site.
- On 18 August 2014 the EPA again inspected the premises and observed that all waste had been removed from the premises.
- The EPA considered its regulatory options in relation to the waste matters. On 19 September 2014 the EPA issued an Official Caution for the alleged waste offences the EPA observed. Should the EPA observe any future non-compliances the EPA will take the Official Caution into account in determining the most appropriate regulatory response.
- The EPA has inspected the premises and confirmed all waste has been removed from the site. There is no need for further action at present.

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## WOLLANGAMBE RIVER: QUESTIONS 40 - 41

### **Question 40**

**Has the EPA altered the Environmental Protection Licences for the Moolarben Mine to allow for waste water discharge in the last five years?**

Yes, since 2009 the EPA has made eight variations to the Environment Protection Licence (No. 12932) held by Moolarben Coal Operations in relation to the discharge of rainfall runoff. Seven variations have been for the ongoing improvements in water management and to reduce the sediment discharged from the mine site. The most recent (August 2014) is a Pollution Reduction Program prescribing a deadline of December 2015 for the company's \$12 million voluntary upgrade of its on-site water management system.

One licence variation, in December 2010, was for Moolarben to undertake a short term emergency discharge in a controlled manner to release stormwater after extreme rainfall that month. Moolarben achieved the release within six weeks and complied with the licence conditions set by the EPA.

**a) Why was the mine allowed to discharge waste water?**

The storm water discharge authorised by the Environment Protection Licence is stormwater runoff from the mine areas after it has been captured and held to allow sediment to settle in the stormwater collection system and not be discharged off-site. The discharge of captured stormwater has to meet the EPA's limits for suspended solids and turbidity.

The only exception is the discharge of stormwater after the sediment control system is full and the mine having received 44 millimetres of rain over 5 days, when the local creeks and Goulburn River are experiencing high flows. When the \$12 million upgrade of the stormwater control system and clean water diversion system has been completed by December 2015, this will further reduce the likelihood of discharges after prolonged heavy rainfall.

**b) What analysis was undertaken as to the environmental impact of the wastewater discharge into the Goulburn River?**

In the event of December 2010 when the area around Moolarben received extremely heavy rain causing flooding and was declared a Natural Disaster Area, and when Moolarben discharged stormwater the EPA did not require monitoring of the Goulburn River. In these conditions natural sediment levels in the river were highly elevated. The discharge from the Moolarben Coal mine was controlled to avoid environmental impact in the Goulburn River beyond the natural sediment levels that existed at the time. Due to the high sediment levels in the Goulburn River at the time of the discharge it was not possible to conduct analysis that could attribute environmental impacts to any particular sources of sediment.

**c) Has the EPA investigated the impact of waste water discharge on the Wollangambe River?**

Yes, the EPA has engaged the Office of Environment and Heritage (OEH) to do an investigation into the impact of the mine water discharge from Clarence Colliery on the Wollangambe River. Between 21 and 24 October 2014 OEH undertook the sampling of the mine water and assessment of the aquatic biota and ecosystem of the Wollangambe River and nearby creeks.

**i. If yes, what are the impacts of waste water discharge on Wollangambe River?**

The analysis of the quality of the mine water discharge from Clarence Colliery into the Wollangambe River and the findings of the health of the aquatic biota and ecosystem are not yet available.

### **Question 41**

**Does the EPA accept the results from research from Dr Ian Wright which show that the waste discharge from the Clarence Coal mine is adversely affecting the aquatic**

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**ecosystems, polluting the river measured by increased pH, increased temperature and higher salinity of the Wollangambe River?**

The EPA first became aware of Dr Wright's published papers in August 2014 and accepts that the results from Dr Wright's research indicate that the discharge of mine water from Clarence Colliery is impacting on the water quality and aquatic biota of the Wollangambe River downstream of the coal mine, and that these findings now need to be validated by further research.

**a) What response has the EPA made to this research?**

The EPA has engaged OEH to undertake further research to validate the results of Dr Wright's results. Between 21 and 24 October 2014 OEH undertook sampling of the mine water discharge from Clarence Colliery and field assessment of the aquatic biota and ecosystem of the Wollangambe River and nearby creeks.

The EPA in conducting its review of the Environment protection Licence held by Clarence Colliery will be taking Dr Wright's findings into account in conjunction with the research work of OEH.

**b) Why does EPL 726 not mention aquatic ecosystems and does not have discharge conditions relating to salinity or Nickel?**

Environment Protection Licence No. 726 does not mention aquatic ecosystems because to date there was no clear reason to require monitoring of the aquatic ecosystem. The licence has been in place for many years and was first issued on the basis of limits established under the *Clean Waters Act 1970* (repealed in 1997). Salinity and nickel were not listed as pollutants for the purpose of that Act and were therefore not included on the licence.

Salinity in the discharge to the Wollangambe River has traditionally been low and within ANZECC 2000 guidelines until 2014 when higher levels were reported by the University of Western Sydney. The EPA has recently become aware of potential environmental impacts from nickel in the Wollangambe River and has included this in the current 2014 licence review process.

**c) Has the EPA issued a clean-up notice for this site? If not, why not?**

The EPA has not issued a Clean-up Notice under Section 91 of the *Protection of the Environment Operations Act 1997* because Clean-up Notices are more suited to dealing with spills, and emergency clean ups. However, the EPA has publicly advertised seeking comment on its proposed variation of the Environment Protection Licence for Clarence Colliery which is aimed at adding new and tighter limits to the licence and a Pollution Reduction Program to reduce pollution and provide better protection for the Wollangambe River.

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## GRANGE STATE FOREST / HARWOOD ISLAND: QUESTION 42

### Question 42

- a) **The Clarence Environment Centre alleged illegal logging of critically endangered Lowland Forest in the Grange State Forest and dumping of large volumes of toxic waste at Harwood Island. a) What investigations did the EPA undertake of this case and what was the result?**

#### *Grange State Forest*

In July 2010, the EPA conducted a thorough investigation into allegations received about logging in compartment 352 and 353 of the Grange State Forest in northern NSW. The allegations included:

- logging without adequate selection, retention and mark-up of hollow-bearing and recruitment trees.
- logging within high conservation value old growth forest and 'Lowland Rainforest' Endangered Ecological Community (EEC).
- inadequate stream protection with incorrectly marked protection zones, trees felled within required protection zones and trees felled into filter strips and drainage lines.

The EPA's field investigation confirmed breaches of the Integrated Forestry Operations Approval in relation to stream protection and harvesting areas where logging may have occurred within potential Lowland Rainforest EEC.

The EPA engaged an independent expert botanist to provide expert advice on the EEC related allegations.

In deciding upon the appropriate regulatory response the EPA considered this advice in combination with the other evidence gathered during the EPA's investigations.

The EPA issued the Forestry Corporation of NSW two penalty notices for offences under the National Parks and Wildlife Act 1974 (NPW Act). These were:

- for an offence under section 118A(2) of the NPW Act – picking of an endangered ecological community (EEC).
- for an offence under section 133(4) of the NPW Act – contravene conditions of the Threatened Species Licence.

The penalties applied were an appropriate regulatory response consistent with the EPA Compliance Policy and Prosecution Guidelines. However, the EPA agrees with community sentiment that the statutory penalty notice amounts are inadequate. The penalty notice amount of \$300 for breach of threatened species licence conditions has not changed since 1974 and doesn't meet the EPA's or community's expectations.

The EPA Board has formally supported a significant increase in these penalty notices to bring them into line with the recent *Protection of the Environment Operations Act 1997* increases for a breach of environmental protection licenses which is now \$15,000 (page 235 of EPA submission).

The Government has already flagged its intention to review Crown native forestry penalties as part of the remake of the coastal IFOAs.

#### *Harwood Island*

The EPA investigated an incident involving the removal of contaminated soil from Harwood Slipway (located on Harwood Island and licensed by the EPA) and the stockpiling of this material at a private property on Palmers Island in January 2014. The soil was contaminated with TBT (Tributyl tin – an antifouling compound applied to the hulls of vessels to prevent marine fouling), copper, zinc and lead. It is believed that these residues were the result of the sand blasting of maritime vessels at the Harwood Slipway on Harwood Island. Around 330 tonnes of this material

was trucked to the private property at Palmers Island. The EPA is not aware of the dumping of contaminated material on Harwood Island and has concluded the question most likely relates to this incident.

The EPA's investigation into this incident included:

- Inspections of both sites (the source at Harwood Slipway on Harwood Island and the property on Palmers Island).
- Review of information provided by neighbours, the Slipway operators and earth moving contractor.
- Collection and analysis of soil samples of the soil excavated from Harwood slipway and stockpiled at the Palmers Island site to determine its contamination status.
- Examination of company records (Harwood Slipway and the earthmoving contractor) to determine total volume of soil removed and stockpiled.

The EPA issued a clean-up notice requiring Harwood Slipway to lawfully dispose of the contaminated soil from the Palmers Island property. The notice also required the company to engage a suitably qualified consultant to conduct validation sampling to ensure there was no residual contamination. The validation report confirmed that there was no residual contamination on the Palmers Island property.

The soil was lawfully disposed of at a landfill at Swanbank in Queensland. The company had to meet the full cost of this disposal and the work of the consultant.

Harwood Slipway was issued a \$5000 Penalty Notice for breaching section 143 of the *Protection of the Environment Operations Act 1997*.

The EPA required the stockpiled soil on Palmers Island to be covered to prevent off-site migration of soil and possible contaminants. This requirement was imposed prior to the removal and lawful disposal of the contaminated soil. The site was checked and subsequently validated to confirm there was no residual contamination.

These steps effectively prevented significant environmental damage.

The major financial impact to the operators of the slipway, stemming from the EPA's investigation was the cost of transport and disposal of the contaminated material to Swanbank in Queensland and the cost of the independent consultant to validate the clean-up of the site. The \$5,000 Penalty Notice was considered appropriate given the lack of significant environmental harm and the considerable investment by the company to rectify the inappropriate stockpiling of the contaminated material.

## GORE BAY: QUESTION 43

### Question 43

**Does the EPA consider the location of the Gore Bay terminal to be in an appropriate area for its environmental and human health risks?**

The assessment of the risks associated with the location of a major hazardous facility is the responsibility of the Department of Planning and Environment and Workcover NSW.

**a) Why has the EPA license granted to Shell not been changed to reflect the operational changes which occurred in 2012?**

Viva Energy (formerly Shell) holds an environment protection licence (EPL) (No 661) for scheduled activities at its Gore Bay Terminal under the Protection of the Environment Operations Act 1997. One of these activities is Petroleum Products Storage, meaning the storage or packaging of petroleum or petroleum products in containers, bulk storage facility or stockpiles. The current licence has allowed Viva Energy to import petroleum products, including petrol and crude oil. Shell has imported a range of products over the past ten years including petrol and crude oil.

The EPA formally reviewed the EPL on 29 November 2010, the next statutory review is due on 29 November 2015. The EPA regularly considers the licence conditions to ensure they are appropriate and will require variations when changes to activities on the premises require it.

The Licence has been varied 6 times since 2010, including the addition of Pollution Reduction Programs. The EPA has also advised the community that once the current development application is determined the EPA has committed to further review the EPL to ensure it is consistent with the development consent.

**b) Why did the EPA choose to issue Shell with repeated penalty notices related to noise and odour pollution when their guidelines state that “penalty notices are designed to deal with one-off breaches that can be remedied easily”?**

The EPA has issued penalty notices on two occasions in 2012-2013 as the appropriate regulatory response for two separate investigations into different incidents at the Gore Bay Terminal. The EPA determined that the issuing of Penalty Notices was the appropriate regulatory response consistent with the EPA's Compliance Policy.

*13/12/2012 Penalty Notice No 3085767558 – Odour Emissions*

This Penalty Notice was issued in response to an odour incident. Shell advised that the cause of the odour was likely to have been the discharge rate of the Kingfisher (Product Delivery Ship) which was at a slightly higher rate than the new upgraded Vapour Emissions Control System's (VECS Unit's) capacity.

As a result the EPA determined that Shell Refining (Australia) Pty Ltd did cause odour to be emitted by its failure to carry out licensed activities in a competent manner and a Penalty Infringement Notice was issued

*24/01/2013 Penalty Notice No 3085768474*

The Environment Protection Authority received a number of complaints from residents of Greenwich regarding offensive odours from late December 2012 until early January 2013. Based on information received the EPA determined that the odour complaints were related to the transfer of Marine Fuel Oil from the bulk storage tanks at the Gore Bay Terminal to Shell's marine fuel delivery barge, the Whitnavigator. A penalty notice was issued for this incident.

**c) Why has the EPA continued to allow Shell to operate on noise levels in excess of the WHO recommendations?**

The World Health Organisation has a number of publications related to noise. The EPA is unclear what specific WHO recommendation is being referred to however, two relevant documents are:

- Guidelines for Community Noise (1999)

- Night Noise Guidelines for Europe (2009).

Both of these documents present noise guideline values for a number of different potential health effects in specific environments using a range of different noise indicators and time periods.

It is important to note that the WHO recommendations do not represent standards or criteria to assess site specific projects.

The WHO 'Night Noise Guidelines for Europe' were developed to offer advice to European Member States in regard to their obligations under the European Noise Directive (2002/49/EC). The Directive relates to broad noise management initiatives in European Member States such as noise mapping exercises across large population areas. This is reflected in the foreword to the NNG which states

'...these guidelines are neither standards nor legally binding criteria, they are designed to offer guidance in reducing the health impacts of night noise based on expert evaluation of scientific evidence in Europe'.

Research conducted by the WHO, and others, has contributed to the understanding of the link between noise and health effects. However, at this time, there is insufficient evidence to adopt practical and justifiable health based noise trigger levels in NSW noise policies and guidelines based on WHO recommendations. The EPA continues to work with NSW Ministry of Health on the health effects of noise in the community and is a member of the group currently reviewing the enHealth Council report, *The health effects of environmental noise- other than hearing loss* (2004).

Existing noise criteria for Gore Bay Terminal is set out in EPL 661. It sets out operational noise criteria, in terms of the LA10 (15-minute) metric, based on NSW noise policy requirements at the time the licence was issued.

The EPA formally reviewed the EPL on 29 November 2010 and the next statutory review is due in November 2015. The EPA regularly considers the licence conditions to ensure they are appropriate and will require variations when changes to activities on the premises require it.

The EPA on 2 November 2012 placed a PRP on Shell's EPL to undertake an investigation into the impact of noise generated by the terminal (including at times when shipping vessels are moored at its Gore Bay terminal), on the amenity of the neighbouring Greenwich community.

Shell completed this PRP and provided the EPA with a report. Shell has since implemented the recommendations of this report. The actions have included better ship selection, changes to pumping regimes and configuration, and on-board emission controls.

#### **d) Why did the EPA remove emission monitoring from the Shell Gore Bay license?**

The EPA regularly considers the licence conditions to ensure they are appropriate and will require variations when changes to activities on the premises require it. This includes removing completed Pollution Reduction Programs and redundant conditions.

The terminal upgraded its vapour emission control system (VECS) in 2012; this system captures and treats the vapour that is displaced from storage tanks and the supply lines.

This upgrade has required changes to the EPL; the EPA is currently reviewing the monitoring requirements for the upgraded VECS system and will add additional monitoring and reporting conditions to the EPL, once this review is complete.



## MULGRAVE COMPOSTING FACILITY: QUESTION 44

### Question 44

With regards to the ELF Farm Mushroom Composting Facility at Mulgrave:

- a) **Were the remediation works completed by the agreed deadline?**
- i. **If no, what follow up investigations has the EPA carried out to ensure the remediation works have been completed? What penalties will ELF Farm Mushroom Composting Facility at Mulgrave face for not meeting this deadline?**
  - ii. **If yes, were the mediation works completed to a standard which would satisfactorily mitigate the foul smelling odours being emitted past the boundaries of the factory into the neighbouring community and surrounds?**

The Pollution Reduction Program (PRP) placed upon the Elf Farm licence required works to be completed before 31 October 2013. These works required submission of a report assessing the bio-scrubber and stack emissions. This report was received by the EPA on 31 October 2013. The report was produced in accordance with the requirements of the pollution reduction program. Following ongoing community complaints, the EPA conducted further site investigations and determined that works to date had not satisfactorily mitigated odour emissions.

The EPA conducted further odour surveys and required further modifications to the licence in March 2014. In June and July 2014 the EPA identified offensive odour emanating from the premises and issued two penalty notices for these offences.

As a consequence, the EPA required further substantial works be undertaken by Elf Farm which will ensure all potentially odorous activities from the pre-wet, phase 1 and manure handling buildings are contained and treated prior to discharge to atmosphere. Elf Farm has recently lodged a development modification with the Department of Planning and Environment to undertake these works. The EPA has also required Elf Farm to assess the odour emissions from the phase 2 and 3 buildings to determine whether these must also be included in the proposed odour capture and treatment system. The EPA has also required Elf Farm to establish and maintain a community liaison committee.

- b) **What monitoring/ reporting has been put in place to ensure that into the future, ELF Farm is following EPA directive to mitigate foul smelling odours from being emitted into the surrounding neighbourhoods?**

The EPA conducts regular announced and unannounced inspections of the facility and odour surveys in the Windsor/Mulgrave area for the purpose of identifying odour emissions. EPA conducted 2 facility inspections and 38 odour surveys in the Windsor/Mulgrave area during 2014, including 23 surveys and an inspection conducted during a week-long intensive monitoring program in June/July. The EPA conducted 4 facility inspections and 31 odour surveys in the Windsor/Mulgrave area during 2013.

EPA has required Elf farm engage a suitably qualified consultant to assess and model all odour emissions from the facility with the report due on 10 November 2014.

- c) **How many calls were made to the EPA hotline (or equivalent) regarding the foul smelling odours being emitted by ELF Farm Mushroom Composting Facility at Mulgrave prior to 31 October 2013?**

EPA records identify 1140 complaints regarding Elf Farm Supplies between 13 March 1997 and 31 October 2013.

The EPA has compiled all complaint records in which the caller has nominated Elf Farms as the source or possible source of odour, or the location details indicate it is most likely to be Elf Farm. These complaints were not necessarily corroborated by EPA investigation. Other possible sources of odour in the area include multiple intensive livestock operations including dairy and poultry farms, a number of sewage treatment systems (Council and Sydney Water), landfills, numerous applicators of manure and other soil improvers (e.g. turf farms), an abattoir, a pet food factory, a stock feed factory and several industrial sources of odour.

**d) How many calls were made to the EPA hotline (or equivalent) regarding the foul smelling odours being emitted by ELF Farm Mushroom Composting Facility at Mulgrave after 31 October 2013?**

The EPA received 161 complaints regarding Elf Farm Supplies between 31/10/13 and 22/10/14.

The EPA has compiled all complaint records in which the caller has nominated Elf Farms as the source or possible source of odour, or the location details indicate it is most likely to be Elf Farm.

These complaints were not necessarily corroborated by EPA investigations. Other possible sources of odour in the area include multiple intensive livestock operations including dairy and poultry farms, a number of sewage treatment systems (Council and Sydney Water), a couple of landfills, numerous applicators of manure and other soil improvers (eg turf farms), an abattoir, a pet food factory, a stock feed factory and a few industrial sources of odour.

**e) What is the threshold for calls of complaint on an issue such as the odour issue at ELF Farm Mushroom Composting Facility at Mulgrave, that would trigger an investigation by the EPA based on caller concerns?**

There is no specific threshold.

The EPA assesses every complaint received and allocates resources to investigate these dependent upon the risk to environment and community, strength of evidence provided, current priorities and any current action the EPA is taking action to resolve the concern.

EPA Waste Compliance Section has determined Elf Farm Supplies is creating significant odour impacts to the community, considers odour mitigation at the facility a priority concern and has informed Elf Farm Supplies that its capacity to conduct its activities is dependent upon stopping these odour emissions. The EPA has required Elf Farm Supplies undertake further significant development works to contain and treat odour emissions from its activities. The EPA will continue to conduct regular announced and unannounced inspections of the facility and odour surveys in the Windsor/Mulgrave area for the purpose of identifying sources of odour emissions. The EPA will continue to take appropriate regulatory action where offensive odour emissions are identified.

## NORTH HEAD WASTE WATER TREATMENT PLANT: QUESTION 45

### Question 45

**Regarding the North Head Waste Water Treatment Plant (NHWWTP):**

- a) When did the EPA last upgrade its license standard for effluent disposal to the ocean from the North head Waste Water Treatment Plant?**

The North Head Waste Water Treatment Plant (NHWWTP) Environment Protection Licence (EPL) was last updated in July 2014 and has been regularly updated since its inception. (Note: the plant is licensed as the North Head Sewage Treatment Plant (STP))

- i. Are these standards in line with world's best practice?**
- ii. If not, when will the EAP revise its license standards to bring them into line with world's best practice?**

The NHWWTP EPL has conditions designed to minimise the impact of the NHWWTP on the environment whilst taking into consideration the sewage plant treatment capacity, catchment effluent characteristics and receiving environment attributes

- b) How many complaints has the EPA and its predecessor received since 2010 regarding what nearby residents are advising is a long standing odour problem emanating from the North Head waste Water Treatment Plant including the transport of bio-solids from the plant twice daily by truck?**

A review of Environment Line records indicates that between 1 January 2010 and 23 October 2014, the EPA and its predecessor received 85 complaints in regard to odour from the NHWWTP and 10 complaints in regard to odour from trucks believed to be carrying waste from the NHWWTP.

- c) Given resident concerns and a steady flux of community complaints to local media outlets, the local council, the local member, NSW OEH and the EPA, has the EPA sought to engage an independent odour assessment study of the North Head Waste Water Treatment Plant?**

Yes. At the request of the EPA, Sydney Water undertook a Voluntary Audit at North Head NHWWTP in December 2011. The audit was commissioned by Sydney Water to be undertaken by an independent external consultant (Larry Weiss, QEM Consulting) in accordance with Part 6.3 of the POEO Act 1997. The results of the audit were presented to EPA in Sydney Water's Progress Report – February 2012 North Head Waste Water Treatment Plant Odour Management Plan. The EPA was satisfied with the findings and conclusions of this report. The audit findings have led to a range of improvements in the way Sydney Water operates the plant to reduce the potential for odour emissions.

- i. If no, will the EPA seek to engage an independent odour assessment study of the North Head Waste Water Treatment Plant?**

Not applicable (see response to Question 45 c) above).

- d) Has the operator of NHWWTP, Sydney Water satisfactorily produced either a long term or short term odour management plan to address offensive odour concerns?**

At the request of the EPA, Sydney Water undertook a voluntary environmental audit in relation to odours at the NHWWTP. Sydney Water has an odour management plan in place (North Head Wastewater Treatment Plant Odour Management Plan 2011) and has been working towards minimising odours from the NHWWTP.

- i. If not, why?**
- ii. Will the EPA direct Sydney Water to produce an odour management plan? Will this plan be released to the public? If not, why not?**

N/A

- e) Given offensive odours have been a longstanding issue for the community surrounding NHWWTP, why hasn't the EPA directed Sydney Water to undertake a Pollution Study and Reduction Program?**

At the request of the EPA, Sydney Water undertook a voluntary environmental audit in relation to odours at the NHWWTP. Sydney Water has an odour management plan in place (North Head Wastewater Treatment Plant Odour Management Plan 2011) and has been working towards minimising odours from the NHWWTP. A progress report on the odour plan was presented to EPA in February 2012. An update on the actions from the voluntary audit was also provided to the EPA in December 2013. All recommendations are underway with the majority now complete.

The EPA is also aware of planned and current upgrade works on site including replacing the existing Northern Suburbs Ocean Outfall Sewer (NSOOS) scrubber at North Head Wastewater Treatment Plant.

**f) Does the EPA regard the upgrade of critical infrastructure such as the NHWWTP and other ocean plants to meet world best practice standards and minimise both impact and harm to the environment and communities, as a priority?**

- The requirements set by the EPA for the NHWWTP have been determined to minimise the impact of the WWTP on the environment whilst taking into consideration the sewage plant treatment capacity, catchment effluent characteristics and receiving environment attributes.
- The level of treatment required by the EPA is considered appropriate based on the impact on the receiving environment.
- The EPA would only consider that the upgrade of an ocean waste water treatment plants is required where there was a scientific basis for determining an unreasonable impact on the environment and the community.
- The Ocean Reference Station and ocean floor sediment data indicates that the impact from the wastewater treatment plants on the environment is minimal due to the dispersion of effluent through the deep-water ocean outfalls to the receiving environment.

**g) With regards to the investigation of several complaint by community of offensive odours emanating from NHWWTP on 24 February 2010, was a decision made not to prosecute Sydney Water under the NSW POEO Act 1997 for this incident? i) If yes, why?**

Yes. A detailed investigation was conducted by the EPA into the six complaints it received from the Manly community on 25 February 2010 and odour management at NHWWTP. The EPA was not able to establish what the source of odour was within the plant and the specific equipment that was involved. The EPA made a decision to suspend its inquiries because it was considered unlikely that further investigative steps would generate sufficient evidence to proceed with a prosecution. This is in line with the EPA's Prosecution Guidelines.

The EPA did however seek Sydney Water to undertake a voluntary audit relating to odour emissions as outlined in the responses to previous questions.

**h) How many complaints were made to both the EPA and directly to NHWWTP regarding the offensive odour incident on 24 February 2010?**

On February 25 2010 the EPA received six complaints via Environment Line concerning an alleged odour incident on 24 February 2010. All six complainants were present in a meeting at the Gatehouse at the former School of Artillery at North Head. Sydney Water informed the EPA that one additional complaint was received directly by the NHWWTP from a resident approximately 1.5 kilometres from the plant.

**i. Were all complaints taken into account and treated with equal consideration? If no, why not?**

Yes. All complaints were taken into account and treated with equal consideration.