

Appendices

Appendix One: DMR response to proposed opinions

ATTACHMENT 2



Pacific Motorway
Queensland Ombudsman: Proposed Report: 28 September 2006
Comments on Section 16 - Proposed Opinions

Proposed Opinion	Supporting Facts	DMR Position	Comment
<p>Proposed opinion 1</p> <p>During, or for the purpose of, public consultation for the motorway, DMR provided information that was based wholly or partly on a mistake of fact within the meaning of s.49(2)(f) of the OA, and/or was wrong within the meaning of s.49(2)(g).</p> <p>The particulars of this maladministration are:</p> <p>1.1 DMR issued documentation, in support of the IMP, that contained incorrect statements to the effect that:</p> <ul style="list-style-type: none"> • for modelling purposes in relation to the motorway, light longitudinally-textured concrete has the same noise correction factor as DGAC (Technical Paper No. 13); • a concrete pavement with light texturing plus transverse tining and an asphalt pavement with an open-graded surface are both low noise surfaces (Volume 2 Review of 	<ul style="list-style-type: none"> • The research papers by Samuels & Glazier and Dash were used to justify the original statements in Technical Paper 13 and the REF. • Technical Paper 13 does state 'light longitudinally-textured concrete has the same noise correction factor as DGAC'. The information in the Technical Paper was used to produce the REF. The REF (Sect 7.4.9) does state 'both concrete pavements with light texturing and transverse tining and asphalt pavements with an open graded surface (OGAC) are low noise surfaces'. • A concrete pavement with light texturing plus transverse tining was the proposed concrete surface for the project. This type of concrete surface was considered to be equivalent to the <i>PCC – SG (shallow grooved)</i> and <i>PCC – HD (hessian dragged)</i> pavement as described in the Samuels & Glazier paper and the <i>light longitudinally dragged concrete surface</i> described in the Dash paper. • The tining depth of the concrete pavement fits the category of "shallow grooved" based on the discussion in the Samuels & Glazier paper about texture depth. Samuels and Glazier define <i>PCC – DG (deep grooved)</i> as being in the order of 3.0 mm. The tining depth of the Pacific Motorway concrete pavement does not exceed 1.0 mm, hence its 	<p>Not supported</p>	<p>The facts do not support this opinion.</p> <p>The statements contained within Technical Paper 13 and the Review of Environmental Factors (REF) that relate to the noise generating characteristics of various pavement types cannot be defined as incorrect. These statements were consistent with the research findings that were available at the time the IMP was prepared.</p>

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Environmental Factors).	<p>classification of being shallow-grooved. This is further backed up by Dash who cites in his paper that a texture depth of not more than 1.0 mm is desirable on noise grounds.</p> <ul style="list-style-type: none"> • In accordance with the findings of Samuels & Glazier and Dash, a PCC pavement that is hessian dragged with transverse tining compares favourably with DGAC in terms of noise generation. • In order to confirm that this interpretation was correct, DMR required the IMP consultants (Rust PPK) to re-examine their conclusions in relation to the noise generating characteristics of proposed pavement. DMR also commissioned internationally recognised experts to prepare the Wallace Report in order to independently examine the available research regarding pavement options including their respective noise generating attributes. Both reviews found that the original interpretations of the Samuels & Glazier and Dash reports were reasonable. 		
1.2 DMR (through its officers and/or its consultants) provided incorrect information during the public consultation for the motorway to the effect that the traffic noise environment associated with the new motorway, irrespective of the pavement type, would be no worse than that associated with the old Pacific Highway.	<ul style="list-style-type: none"> • The existing Pacific Highway, prior to upgrade, had a DGAC surface. All investigations of proposed pavements were done as a comparison with a DGAC surface. • As detailed in Section 1.1 above, the information available at the time supported the conclusion that, irrespective of the two pavement types constructed, the resulting traffic noise would be no worse than that associated with a DGAC surface. 	Not supported	The facts do not support this opinion. DMR was careful to advise residents during consultation that the noise generated by the proposed concrete surface would be similar to that generated by a DGAC surface. This was based on the premise that research at that time concluded that a concrete surface with light texturing plus transverse tining has similar

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			<p>noise generating attributes as DGAC.</p> <p>DMR also advised residents during consultation that in 2011 there would be no properties that had noise levels exceeding the Interim Guidelines.</p>
<p>1.3 The incorrect documentation and information resulted from DMR's reliance on the results of research into pavement noise, which it misinterpreted as meaning that PCC and DGAC had similar pavement correction factors and therefore generated similar noise levels.</p>	<ul style="list-style-type: none"> • As shown above, DMR considered the specific type of concrete pavement proposed and compared that with the findings of the Samuels & Glazier paper and the Dash paper. • This finding was confirmed by the IMP consultants (Rust PPK) and the Wallace Report. • In July 2001 DMR commissioned Samuels to investigate the different noise attributes of the type of PCC constructed on the Pacific Motorway, DGAC and OGAC. This research concluded that there is a 5dB difference between the PCC used on the Motorway and DGAC. 	<p>Not supported</p>	<p>The facts do not support this opinion.</p> <p>DMR did not misinterpret the results of research into pavement noise that existed at the time. However subsequent research, commissioned by DMR, has shown that the information used to come to these conclusions is not correct.</p>
<p>Proposed opinion 2</p> <p>DMR's actions, in relying on its interpretation of the research without further inquiry, constitute unreasonable administrative action within the meaning of s.49(2)(b) of the OA and/or were wrong within the meaning of s.49(2)(g).</p> <p>The particulars of this maladministration are:</p> <p>2.1 Concerned residents had a reasonable expectation that DMR, as</p>	<ul style="list-style-type: none"> • The process that DMR followed to reach its original conclusions regarding the noise generating characteristics of the PCC pavements used has been outlined in previous sections. Although the information used has subsequently been shown to be incorrect, the process used to interrogate and validate the information available at the time was robust. 	<p>Not supported</p>	<p>The facts do not support this opinion.</p> <p>DMR did properly consider the relevant research available at the time relating to the noise generating characteristics of the pavement surface options available. This information was used in the process to select the surface that was constructed.</p>

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<p>the road authority for the State of Queensland, would properly consider relevant research and other information reasonably available in relation to the noise levels of pavement surface options for the motorway, before choosing the surface.</p>			
<p>2.2 DMR officers acknowledged too that they held doubts at the relevant time about the assumption that PCC and DGAC had similar pavement correction factors and therefore generated similar noise levels.</p>	<ul style="list-style-type: none"> • DMR did have concerns about the correctness of the information that conclusions were drawn from. In response, further expert opinion was sought to check the reasonableness of the original conclusions. As already outlined this additional investigation took two forms: <ul style="list-style-type: none"> ○ Wallace Report which was prepared by internationally recognised experts. ○ The Departmental consultants for the project (Rust PPK) were directed by DMR to double check their work and provide evidence that their original conclusions were correct. • Both reviews found that the original interpretations of the Samuels & Glazier and Dash reports were reasonable. 	<p>Not supported</p>	<p>The facts do not support this opinion. DMR Officers did challenge the assumption that PCC and DGAC had similar pavement correction factors as stated in the opinion. In response additional work was commissioned in order to investigate whether the assumptions as then held were correct. The findings of these additional studies verified the original assumptions were valid.</p>
<p>2.3 Research was available at the relevant time, which was known to officers of interstate road authorities, establishing that (generally) concrete road surfaces generated greater traffic noise than asphalt surfaces.</p>	<ul style="list-style-type: none"> • DMR in its deliberations over pavement options was not looking at concrete pavements in a general sense. DMR was specifically investigating the likely noise generating attributes of a particular type of concrete pavement being PCC – hessian dragged and shallow grooved. The findings of the 	<p>Not supported</p>	<p>The facts do not support this opinion. DMR challenges the technical accuracy of the statement made in the opinion that the research available at the time established that (generally) concrete road surfaces</p>

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<p>This research supported the view that a PCC pavement would generate higher noise levels than DGAC under motorway conditions.</p>	<p>investigation into this type of particular PCC pavement concluded that it was comparable to DGAC in its noise generating attributes.</p> <ul style="list-style-type: none"> • The interpretation of research by one officer of an interstate road authority, VicRoads, has been used. This road authority does not build many concrete pavements. There is no evidence of a response from similar questions being asked of the NSW road authority, RTA, which has built large lengths of concrete pavement over many years. • DMR went to considerable lengths to verify its original conclusions. DMR required the IMP consultants (Rust PPK) to re-examine their conclusions in relation to the noise generating characteristics of proposed pavement. DMR also commissioned internationally recognised experts to prepare the Wallace Report in order to independently examine the available research regarding pavement options including their respective noise generating attributes. Both reviews found that the original interpretations of the Samuels & Glazier and Dash reports were reasonable. • Manager of VicRoads Environmental Services states that: <ul style="list-style-type: none"> <i>"...it would appear that the research of 1990 giving the results for PCC – SG is not repeated in the current data."</i> <p>This statement further verifies the original conclusions reached by DMR consultants and staff in</p>		<p>generated greater traffic noise than asphalt surfaces.</p>

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	<p>1996/97 in that the current research at the time was saying that the noise generating attributes of the proposed concrete surface compared favourably with the noise generating attributes of DGAC.</p>		
<p>2.4 The Project Manager recommended asphalt for all noise sensitive areas.</p>	<ul style="list-style-type: none"> • The agenda of the meeting of the Pacific Motorway Board of Review on 21 January 1997 contained an item relating to pavement selection. The follow-up actions undertaken as a result of the 21 January meeting are recorded in the minutes of the board meeting held on 11 February 1997. The relevant text from this meeting is reproduced below and : <ul style="list-style-type: none"> <i>R Higgins to set out position paper with recommendations for pavement types on different sections of the project.</i> <i>Director-General endorsed approach at briefing session on 22 January 1997. In view of latest advice on cost of the heavy duty asphalt pavement and the intention to lower the highway at Oxenford – instead of raising the highway – it is proposed to:</i> <ul style="list-style-type: none"> - <i>use heavy duty asphalt:</i> - <i>between Logan Motorway and Albert River bridge;</i> - <i>Gold Coast Highway interchange to Pappas Way, Nerang;</i> <i>and</i> - <i>Concrete between Albert River and the Gold Coast Highway.</i> 	<p>Not supported</p>	<p>The facts do not support this opinion. DMR considers that opinion as worded over-simplifies a decision-making process that needed to consider a number of complex issues.</p> <p>As is stated in the IMP and REF, the road pavement would be a heavy duty, long life, low maintenance pavement. Other essential criteria of the pavement were:</p> <ul style="list-style-type: none"> • smooth ride qualities; • low noise; • adequate drainage; and • high skid resistance.

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	<ul style="list-style-type: none"> The above decision is the end result of a process that invested significant effort in balancing the various criteria that the pavement needed to satisfy. 		
<p>Proposed opinion 3</p> <p>Having regard to the commitment in the IMP that noise levels would not exceed 68dB(A), DMR's actions in taking approximately 6 years to complete the noise barrier program in order to meet this commitment constitute unreasonable administrative action within the meaning of s.49(2)(b) of the OA.</p>	<ul style="list-style-type: none"> Three stages of construction of noise barriers on the Pacific Motorway Project are completed (see Attachment 4): <ul style="list-style-type: none"> 13,900 m (45,140 sq m) of noise barriers installed during the construction of the project 4,200 m (17,270 sq m) of noise barriers constructed after the project including: <ul style="list-style-type: none"> those withdrawn from the major contracts and built after further consultation with the local community those built as an outcome of additional monitoring following complaints 4,980 m (21,370 sq m) of noise barriers commenced in 2003 as a result of the 2003 Reassessment Project Having established via the 2003 Reassessment Report the number of properties that still required treatment it has taken approximately 3 years to design and construct these additional barriers. This period of time has been dictated by the time taken to plan and design the required barriers, scarcity of supplies of ply and other materials and the small number and lack of availability of barrier construction contractors. Attached to this document are maps and figures that present the staging of noise barrier construction over the approximately six years that the Motorway has been opened. 	<p>Modify</p>	<p>The facts do not fully support this opinion.</p> <p>DMR believes that the statement in the opinion that it has taken 6 years to complete the noise barrier program is misleading. 53.9% of the barriers that were required to satisfy the 68 dB(A) L₁₀ (18 hour) criteria were constructed as part of the major contract before 2001. Some additional barriers, 20.6%, were constructed between 2001 and 2003, as a result of ongoing noise management. The latest barriers constructed, 25.5%, were identified in the 2003 Reassessment Report and commenced after 2003.</p>

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<p>Proposed opinion 4</p> <p>The Project Manager's actions in preparing the unsigned, undated, confidential Discussion Paper, containing his recommendation for an asphalt pavement for Sections 1, 4, 5 and 6 of the motorway and concrete for Sections 2 and 3, prepared for consideration by the DMR Board of Review at its meeting (date unknown, but held in December 1996 or January 1997) constitute unreasonable administrative action within the meaning of s.49(2)(b) of the OA.</p> <p>The particulars of this maladministration are:</p> <p>4.1 The IMP set out the criteria the DMR would apply in determining the appropriate pavement surface for the motorway.</p>	<ul style="list-style-type: none"> • Multiple criteria needed to be considered. Noise was one facet to be considered in the decision making process. • Reference in the opinion to the "Project Manager" should be changed to "Project Director" in order to fully clarify the role being discussed. 	<p>Not supported</p>	<p>The facts do not support this opinion. Multiple criteria were required to be satisfied by the motorway pavement. Specifically, as stated in the IMP and REF, the road pavement would be a heavy duty, long life, low maintenance pavement. Other essential criteria of the pavement were:</p> <ul style="list-style-type: none"> • smooth ride qualities; • low noise; • adequate drainage; and • high skid resistance.
<p>4.2 It was reasonable to expect that these criteria would be applied in selecting the appropriate pavement.</p>	<ul style="list-style-type: none"> • All relevant criteria were investigated in depth and are included in the various reports to the Project Board. 	<p>Not supported</p>	<p>The facts do not support this opinion. All relevant criteria were investigated in depth and are included in the various reports to the Project Board.</p>
<p>4.3 The Project Manager failed to take these criteria into account in making his recommendations for the choice of pavement surface or, if he did, failed to record that fact and the</p>	<ul style="list-style-type: none"> • The decision-making process in relation to this issue has been outlined in detail in previous sections. • The commissioning of the Wallace Report is an example of the process DMR went through to make decisions that balanced all relevant criteria. 	<p>Not supported</p>	<p>The facts do not support this opinion. DMR asserts that considerable investment was made in the decision-making process relating to pavements in order for all required criteria to be</p>

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weight he gave to each criterion.			appropriately considered so that a balanced decision could be made.
<p>Proposed opinion 5</p> <p>The then Director-General's decision on or about 22 January 1997 to construct a PCC pavement for the Helensvale section, contrary to the recommendation of the Project Manager, constitutes unreasonable administrative action within the meaning of s.49(2)(b) of the OA, in that the decision was not based on a proper analysis of the relevant criteria in the IMP for selecting the appropriate pavement.</p>	<ul style="list-style-type: none"> • A Pacific Motorway Board of Review was formed in January 1996 to amongst other things delegate the running of the project to the management of the project team. The Board of Review's membership was made up of five senior DMR officers namely the Deputy Director General, the General Manager (Engineering Services), Executive Director (South East Queensland), District Director (South East Queensland), the Director (Major Projects) and an independent professional registered engineer. • The Charter for Pacific Motorway Upgrade Board of Review states in part: <ul style="list-style-type: none"> 3.0 Role of Board of Review 3.6 Delegate the running of the project to management. <i>Where changes to program, scope and budget are required and agreed by the Board of Review, make a recommendation to the appropriate level of authority within The DMR Department to incorporate those changes.</i> • A definitive decision to construct a PCC pavement at this specific location would not have been made at this time. At this time the detailed design of the project was still evolving and the IMP was being finalised. • Subsequent decisions regarding the pavement in 	Not supported	<p>The facts do not support this opinion.</p> <p>There were varying levels of delegated authority within the Board of Review to approve the recommendations of the board. In contentious issues, the view of the Director General and sometimes the Minister was sought. Notwithstanding the above, DMR acknowledges that the Director General would be ultimately accountable for the actions of the board</p> <p>DMR also challenges the implication that a definitive decision had been made at this early stage of the project regarding what type of pavement was going to be constructed at all locations along the project.</p>

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	<p>this location were made in line with the original intent outlined in the IMP and within the established authority of the relevant delegates.</p>		
<p>Proposed opinion 6</p> <p>The then Director-General failed to create and maintain a proper record of his decision (referred to in opinion 5) or, if a record was created, DMR's records management system is deficient in that DMR failed to locate the relevant record. In either event, the failure constitutes unreasonable administrative action within the meaning of s.49(2)(b) of the OA.</p>	<ul style="list-style-type: none"> • As the records relating to this project are stored in a hard copy system retrieval of specific documents is time consuming and labour intensive. When evidence of specific issues was requested at short notice DMR Officers sought these documents from the most readily available source such as records kept by individuals involved in the project. As such the documents presented to the investigating officer are not necessarily those residing in the document management system set up for this project. • DMR currently operates under an electronic document storage and retrieval system in which documents can be searched for using parameters such as key words and dates. • The submission of the Project Director was considered by the Board of Review and based on the multi-criteria assessment, the decision was made to design for concrete pavement from Albert River to the Gold Coast Highway Interchange (Helensvale section). • The record trail detailing and supporting this decision has been located. 	<p>Not supported</p>	<p>The facts do not now support this opinion.</p> <p>The relevant decision record has been located and is attached to this submission as Attachments 2.1 and 2.2.</p>
<p>Proposed opinion 7</p> <p>The Project Manager failed to create and maintain a proper record of his decision to extend the PCC pavement from the Gold</p>	<ul style="list-style-type: none"> • A single pavement was proposed by the Project Director for the construction of Package 4 from Oxenford to Smith Street Motorway. This decision was approved by the Board of Review on 12 	<p>Modify</p>	<p>The facts do not fully support this opinion.</p> <p>The document decision to Smith Street Motorway has been located</p>

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<p>Coast Highway Interchange (contrary to the Director-General's decision referred to in opinion 5 above) to just south of Coombabah Creek or, if a record was created, DMR's records management system is deficient in that DMR failed to locate the relevant record. In either event, the failure constitutes unreasonable administrative action within the meaning of s.49(2)(b) of the OA.</p>	<p>December 1997. The Board had on 21 January 1997 previously approved the construction of the concrete pavement from Oxenford to Gold Coast Highway Interchange and this decision effectively extended the concrete pavement to the Smith Street Interchange.</p> <ul style="list-style-type: none"> • Package 4 of the Pacific Motorway Project was completed as an Alliance and as part of the alliance process, it was decided to reduce the extent of the concrete pavement from the Smith Street Interchange back to Coombabah Creek bridge. This decision was based on the multi-criteria assessment. • The archival system has identified documents referring to this decision but the decision document has not yet been recovered. • DMR is confident that appropriately authorised documents relating to the decisions in question do exist and will dedicate the resources to establish beyond doubt whether or not the relevant records do exist. 		<p>and is attached to this submission as Attachment 2.3 and 2.4.</p> <p>Associated documents about the decision to Coombabah Creek bridge have been recovered but the relevant decision record has not yet been located.</p>
<p>Proposed opinion 8</p> <p>DMR has not met its IMP noise commitment in relation to mitigating any sustained increase in baseline ambient noise levels at sensitive receptors adjacent to the motorway corridor. As the motorway was officially opened approximately 6 years ago, DMR's failure constitutes unreasonable administrative action within the meaning of s.49(2)(b) of the OA.</p>	<ul style="list-style-type: none"> • The commitment made in the IMP in relation to noise was that the <i>"design, construction and operation of the Pacific Motorway shall be based on the DMR Interim Guidelines and shall endeavour (emphasis added) to mitigate against any sustained increase in baseline ambient noise levels at sensitive receptors adjacent to the Motorway corridor."</i> • In the text of the IMP supporting this commitment it also states that <i>"wherever possible"</i> noise impacts shall be managed such that there will be no sustained 	<p>Not supported</p>	<p>The facts do not support this opinion.</p> <p>DMR has not only met its commitment in the IMP with respect to mitigating any sustained increase in baseline ambient noise levels but will in fact exceed the original intent of this commitment once all planned work is completed.</p> <p>Further the statement implying that within the six years since the opening</p>

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	<p>assessment and the decision by DMR to investigate further its actual or implied commitments in relation to any sustained increase at residents. It is not the six years as stated in the opinion. DMR could not know the extent of the sustained increase issue until the re-assessment project was carried out.</p>		
<p>Proposed opinion 9</p> <p>Although visibility of lane markings on the PCC section of the motorway in wet conditions is adversely affected to a greater extent than on asphalt sections, there is currently insufficient justification to resurface the PCC sections of the motorway for the following reasons:</p> <p>9.1 My investigation did not identify any resurfacing option for the PCC sections that would be guaranteed to achieve significant reductions in noise levels arising from the motorway in the medium to long term.</p> <p>9.2 Resurfacing would be an expensive exercise (DMR estimates \$40 million) and would cause enormous disruption to traffic, which would potentially be ongoing because of the greater maintenance requirements associated with asphalt surfaces.</p> <p>9.3 Accident statistics support the</p>	<ul style="list-style-type: none"> • The use of generic terms, such as asphalt, when there are several specific types of asphalt can lead to misinterpretation. In this case it is important to make the distinction between OGAC and DGAC. • DGAC was specifically ruled out as an option on the Pacific Motorway as it does not shed surface water as well as OGAC or the type of PCC adopted. 	<p>Agree</p>	<p>The facts do not fully support this opinion.</p> <p>Agreement is subject to clarification that reference in the text of the opinion to "asphalt sections" should clearly state that it is only OGAC that performs better in wet weather than PCC.</p>

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conclusion that the motorway is safer than the old highway including in wet weather.			