Crib Point Gas Import Terminal and Pipeline Project Expert Witness Statement

Associate Professor Vanessa Wong

1. Name and address
Associate Professor Vanessa Wong
School of Earth, Atmosphere and Environment, Monash University, Wellington Rd Clayton VIC 3800

2. Qualifications, experience and area of expertise

Qualifications:
- Bachelor of Science in Environmental Science with First Class Honours (UNSW)
- PhD (ANU)

Experience and area of expertise:
A/Prof Vanessa Wong has 19 years of experience in research in soil science with a specialisation in soil chemistry, and in particular, acid sulfate soil assessment, remediation and management. Vanessa is a Certified Professional Soil Scientist (CPSS) accredited by Soil Science Australia (SSA), the professional society for soil scientists, Federal Vice-President of Soil Science Australia and the Vice Chair of the Acid Sulfate Soil Working Group in the International Union for Soil Science, the international body for soil scientists which is a part of the International Science Council. She is a member of the s78 Working Group Expert Panel: Boundary Creek and Big Swamp for Barwon Water and the Victorian Marine and Coastal Council Science Panel. She has published over 100 publications (source: Google Scholar) which include international peer-reviewed journal articles, international and national conference abstracts and technical reports.
A CV is included in Annexure A

3. All instructions that define the scope of the statement
Environmental Justice Australia requested the preparation of a report to provide my expert opinion on the following matters:

a. Review the Contamination and Acid Sulfate Soils Impact Assessment and relevant appendices.
b. Review the following chapters and attachments (as far as they are relevant to your expertise):
   i. Project description (Chapter 4)
   ii. Contamination and acid sulfate soils (Chapter 10)
   iii. Terrestrial and freshwater biodiversity (Chapter 7), Surface water (Chapter 8) and Groundwater (Chapter 9)
   iv. Environmental Management Framework (Chapter 25)
   v. Legislation and policy report (Attachment II) (pp 21-24)
   vi. Environmental Risk Report (Attachment III)
c. The appropriateness of the methodology used to assess the contamination and acid sulfate soil impact arising from the project.
d. Actual or likely impacts arising from the project, including impacts on flora, fauna and surface/ground water.
e. Whether the actual or likely risks are identified and or appropriately assessed in terms their level of risk.
f. The effectiveness of any ameliorative or compensatory measures proposed to account for the contamination impacts arising from the project.
g. Any appropriate qualifications or conditions that should be attached to findings or conclusions, such as uncertainties or gravity of threats or impacts.

6. As an expert you are able to consider any such material you consider relevant to your enquiry. Please identify in your report any further materials you consult outside of the briefed materials.
A letter of brief is attached in Annexure B

4. **Details of any other significant contributors to the statement**
   There have been no other contributors to this statement

5. **Details and qualifications of any person who carried out any tests or experiments upon which the expert has relied in preparing the statement**
   There were no tests or experiments that were conducted

6. **Review of Contamination and Acid Sulfate Soils Impact Assessment and Chapters and Assessment outlined in Section 3.**

6.1 The Contamination and Acid Sulfate Soils (ASS) Impact Assessment (hereafter, ASS Assessment) determined the potential ASS risk during construction and operation of the Crib Point Gas Import Terminal and Pipeline project. An assessment of the distribution of acid sulfate soils, their potential impact and acidification potential cannot be accurately assessed using the limited samples that have been analysed in the EES which do not comply with the National Acid Sulfate Soil Guidances (Shand et al., 2018; Sullivan et al., 2018a, b and c). Therefore, the assessment of impact may be significantly underestimated. The desktop review does not incorporate any additional datasets to further inform in the assessment of acid sulfate soil distribution and risk. The ASRIS maps have not been verified in the field and have been described in the EES and in the mapping as of low confidence and that the classifier has little knowledge of experience with ASS (see Table 5-10, ASS Assessment).

6.2 The Environmental Effects Statement (EES) evaluation objective states (in terms of water and catchment values) “to minimise adverse effects on water (including groundwater, waterway, wetland, estuarine, intertidal and marine) quality and movement particularly as they might affect the ecological character of the Western Port Ramsar site.” However, the adverse effects cannot be determined without further sampling and analysis for acid sulfate soils, and therefore, the objective currently cannot be met.

6.3 The EES and the ASS Assessment state that sampling density does not comply with the recommendation made in Table 1 of the Victorian EPA publication IWRG655.1 which specifies sampling at 100 metre intervals for a pipeline, except at the ASS targeted sampling locations. This is then justified in the ASS Assessment in that the investigation has confirmed that ASS management and mitigation measures must be applied throughout the Project and therefore further investigation, other than to calculate or refine liming rates, is not considered necessary. This is highly problematic, because without a systematic and rigours approach to identify the presence of ASS and quantify the risk, the EES has failed to meet the objective stated in 6.2. The assessment of ASS risk and impacts extends beyond simply calculating liming rates. Oxidation of sulfidic materials can change the physical structure of a soil profile, described in Sections 8, 9 and 10), mobilise contaminants and cause potential off site impacts. Furthermore, the impacts of dewatering on ASS over the short and long term are not well understood (Shand et al., 2018) and therefore, a more conservative approach should be taken

6.4 16 km of the pipeline and the FSRU, and the Crib Point Receiving Facility are likely to intersect with acid sulfate soils, as mapped by the Australian Soil Resource Information System (ASRIS). These maps have not been verified with soil sampling and analysis to determine the acidification potential, and hence, these areas are mapped as low or very low confidence. Furthermore, the ASS assessment states “the classification
of ASS via Atlas of Australia Acid Sulfate Soils map is provisional for areas where analytical data was not available when the map was prepared. As such, further assessment of ASS conditions may be required. Shand et al (2018) adds that the maps do not explicitly cover sub-surface ASS and the distribution of these may be much greater than what is currently mapped. Therefore, the assessment of low risk using limited sampling regime cannot be accurately made.

6.5 The risks that are considered in the EES regarding ASS and potential ASS activation (Risk ID C2 and C3) only assess the effects of acid leachate and oxidation of sulfidic material in the intersection of construction with ASS layers, both oxidised and reduced. The EES does not adequately consider the offsite impacts once acidity is generated and mobilised which adversely impacts on the surrounding waterways and environment, impacting on aquatic ecosystems health. Contaminant mobilisation from oxidation of sulfidic materials which have not been characterised can be an issue offsite and the formation of iron flocs which can smother streambeds. Iron flocs are formed from colloidal iron minerals which aggregate together and fall to the bed of waterways where the surface water pH changes from acidic to less acidic as acid discharges are diluted (Burton et al., 2006; Sammut et al., 1996).

6.6 The Acid Sulfate Soil Management Plan is not yet prepared an unavailable for review and the Acid Sulfate Soil Management Protocol does not appear to be available. Therefore, it is unknown in terms of the how the risk will be assessed. One mitigation measure is to minimise the duration and extent of dewatering activities to less than 10 days. However, the ASS characterisation does not distinguish the type of sulfidic minerals that are present, and there is potential that some sulfidic minerals can oxidise in time frames much shorter than 10 days. Monosulfidic black oozes (MBO) and pyritic sandy soils, which are likely to be encountered around the Crib Point Gas Import Terminal, can oxidise within hours to days of exposure to the atmosphere (Shand et al., 2018). MBOs can commonly co-occur with pyrite.

6.7 The EES concludes that the potential environmental risk associated with ASS is limited by the shallow depth of trenching, however, the depth of trenching is the depth at which the sulfidic materials occur on coastal plains.

6.8 The EES and ASS Assessment only considers the effect of construction and operation on ASS processes, specifically, oxidation of sulfidic materials and effect of acidification. The EES considers the impacts of construction of the Crib Point Gas Import Terminal and Pipeline on each environmental issue in a singular manner and does not consider cumulative impacts nor how changes to the one environment will affect another. For example, it does not consider how oxidation and acidification will impact on other environmental issues such as terrestrial and freshwater biodiversity. ASS frequently co-occur with Coastal Saltmarsh, Estuarine Scrub, Swamp Scrub, Swampy Riparian Woodland, Swampy Woodland and Tall Marsh EVCs. The effects of oxidation on these EVCs are not considered and this is a significant gap. Oxidation of sulfidic material can adversely affect these EVCs and cause declines in vegetation health, particularly where chronic discharges of acidity occur (eg. Anglesea estuarine floodplain). Chronic discharges of acidity will affect marine invertebrates and fish due to low pH water.
6.9 The Environmental Management Framework states that there may be certain areas that may be excluded from treatment by liming and this statement is not justified as to why areas are excluded from treatment nor how this will be determined. The Environmental Management Framework then states that a procedure for managing unexpected discovery of ASS will be included in the ASS Management Protocol, however, the ASS Management Protocol is not available for review. These two issues need to be critically reviewed and in particular, why there may be exclusions from lime treatment. The monitoring program that is to be implemented to measure the effectiveness of the ASS management strategy should also be available for review to determine the appropriateness of any suggested monitoring program. ASS are highly dynamic in terms of biogeochemical processes, and in how oxidation of sulfidic materials will affect heavy metal mobility in porewaters, surface and shallow groundwaters and these processes occur at timescales that are much more rapid that what commonly occurs in non-ASS environments.

6.10 The EES Assessment Framework should establish the existing conditions for each study identified in the Environment Risk Report (p2) prior to the assessment of risk and impacts. The existing conditions for ASS have not been determined in a systematic and robust manner and therefore, there are significant gaps in knowledge on baseline conditions which decreases the confidence levels in the risk and impacts assessments, and these cannot be read with the same certainty as they portray.

6.11 The Risk Register in the Environment Risk Report identifies the risks associated with the disturbance of ASS and generation of acid leachate as low and very low. However, this assessment would be considered with low confidence due to the limited knowledge of the depth and distribution of the ASS in the study area and its characterisation. The effect of ASS excavation and oxidation of sulfidic materials is not considered in the Risk Register where it interacts with other specialist studies. For example, extensive research has been conducted (Rosicky et al., 2004a, b) on the impact of acidification via ASS on agricultural land, resulting in reduced productivity and loss of land for agricultural use.

7. The appropriateness of the methodology used to assess the contamination and acid sulfate soil impact arising from the project

The sample point frequency does not comply with the recommendation made in Table 1 of the Victorian EPA publication IWRG655.1 which specifies sampling at 100 metre intervals for a pipeline, except at the ASS targeted sampling locations. Also, it was stated that the investigation has confirmed that ASS management and mitigation measures must be applied throughout the Project and therefore further investigation, other than to calculate or refine liming rates, is not considered necessary. The shortcomings of this approach have been addressed in the points outlined in Section 6. The National Acid Sulfate Soil Guidelines, which inform best practice, with regards to ASS sampling, characterisation and dewatering practices have not been referred to in the EES or ASS Assessment.

8. Actual or likely impacts arising from the project, including impacts on flora, fauna and surface/ground water.

Oxidation of sulfidic materials to form acid sulfate soils triggers a range of biogeochemical reactions and physical processes which extend beyond the generation of acidity. Transport of oxidation products off site (such as acidity, heavy metals, nutrients) can occur at the surface via watercourses and in the shallow groundwater. The saturated hydraulic conductivity in ASS environments, which determines the movement of water from surface water to shallow groundwater, can be high due to the presence of macropores (Johnston et al., 2009) which provide channels in the soil profile for preferential flow. The impacts of dewatering the
short and long term on shallow groundwater are not well understood (Shand et al., 2018) but may adversely affect groundwater dependent ecosystems due to decreases in pH and mobilisation of heavy metals. Oxidation products from acid sulfate soils can potentially contaminate the watercourses associated with agricultural areas, rendering the water supply unfit for stock or irrigation. Discharges of acidity into waterways can cause declines in aquatic ecosystem health, affecting both aquatic flora and fauna with chronically low water pH, and can potentially result in “dead zones” for aquatic organisms. Acid waters can also create barriers in waterways for aquatic organism migration.

9. Whether the actual or likely risks are identified and or appropriately assessed in terms their level of risk.
9.1 No. While it is assumed that sulfidic materials and acid sulfate soils occur along the length of the pipeline, the EES and ASS Assessment do not consider irreversible changes to the soil structure which can occur as a result of dewatering, leading to continual oxidation at depth. Furthermore, once oxidised, the presence of ferric Fe (Fe³⁺) can continue to produce acid due to the oxidation of pyrite by Fe³⁺ and/or the hydrolysis of Fe³⁺ itself even in waterlogged conditions (Cravotta, 1993).

9.2 Dewatering can lead to irreversible changes to soil structure in ASS in a process known as soil ripening, whereby the macropores in the soil profile collapse, leading to a decrease in elevation of the land surface. This can potentially affect the stability of surrounding infrastructure. Rewetting of the soil profile does not reverse these changes because the macropores are no longer present (Johnston et al., 2009).

10. The effectiveness of any ameliorative or compensatory measures proposed to account for the contamination impacts arising from the project.
10.1 Stockpile covering as a management strategy will not prevent oxidation as once oxidation begins, Fe³⁺ can act as an oxidant to continue to oxidise sulfidic materials, as described in Section 9.1, forming a positive feedback process. This will be particularly problematic when stockpiles are exposed for extended periods of time such as during wet weather. Wet weather will also provide a mechanism for transport of acidity and oxidation products.

10.2 It was also stated there may be certain areas that may be excluded from treatment by liming which suggests oxidation will be allowed to occur in some instances, and associated transport of acidity, heavy metals and nutrients

11. Any appropriate qualifications or conditions that should be attached to findings or conclusions, such as uncertainties or gravity of threats or impacts

Many effects associated with the oxidation of ASS are irreversible. Oxidation of sulfidic materials can not only occur during the construction phase, but also in perpetuity during the operations phase to generate chronic discharges of acidity. Once the sub-surface ASS soils are oxidised, it can take years to decades for pH to recover in shallow groundwaters and that the timescales for remediation to reform reduced iron and sulfide minerals in the absence of oxygen is much longer than the time taken for oxidation (Shand et al., 2018).

12. Additional References


13. Statement
‘I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.’

Signed 1st October 2020
Annexure A. Curriculum Vitae – A/Prof Vanessa Wong

Name: Dr Vanessa Wong

Position: Associate Professor: Soil and Land Management
School of Earth, Atmosphere and Environment
Monash University

Telephone: +61 3 9905 2930
Email: vanessa.wong@monash.edu

Dr Vanessa Wong is an Associate Professor in Soil and Land Management at Monash University and a Certified Professional Soil Scientist (CPSS) accredited by Soil Science Australia. She is a soil scientist with 19 years of experience in research in soil, land and water management with a key focus on soil chemistry. She has worked on a range of projects in the areas of acid sulfate soils, soil and water biogeochemistry, floodplain-river interactions, remediation of degraded environments, and understanding the processes and effects of land degradation. She has developed a strong interdisciplinary research profile in soil and land management through her extensive research with land management organisations, community groups and the private sector, which include research projects, provision of high level technical advice and consultancy projects.

Qualifications
2014: Graduate Certificate in Academic Practice (Monash University)
2007: Doctor of Philosophy (PhD) (The Australian National University)
2001: Bachelor of Science (Environmental Science) with First Class Honours (BSc Hons) (The University of NSW)

Appointments
July 2020 – present
Associate Professor in Soil and Land Management
School of Earth, Atmosphere and Environment, Monash University

January 2014 – June 2020
Senior Lecturer in Soil and Land Management
School of Earth, Atmosphere and Environment, Monash University

July 2011 – December 2013
Lecturer in Soil and Land Management
School of Geography and Environmental Science, Monash University

June 2008 – June 2011
Research Associate
Southern Cross GeoScience, Southern Cross University

Oct 2006 – June 2008
Soil and Regolith Geoscientist
Geoscience Australia

Online Profiles
Web page: https://research.monash.edu/en/persons/vanessa-wong
Google Scholar: Profile
LinkedIn: https://www.linkedin.com/in/vanessa-wong-soil-scientist/
Twitter: @DrVanessaWong
AWARDS

• Most meritorious oral presentation by a scientist under the age of 35 years; World Congress in Soil Science (2010) “The effects of sea level rise on the biogeochemistry of a coastal floodplain in eastern Australia.”
• Best PICO (Presenting Interactive Content presentation: European Geosciences Union General Assembly (2014) Soil System Sciences Division: “Remediation and restoration of contaminated soils for plant growth and establishment”
• Best paper: Australian Earth Sciences Convention (2008); Earth Environments Symposium “Above-ground responses to below-ground processes: integrating remote-sensing and airborne electromagnetics for salinity management.”

EDITORIAL BOARDS

• Editor-in-Chief: Land Degradation and Development (2020-present)
• Section Editor: Land Degradation and Development (2018-present)
• Executive Editor: Land Degradation and Development (2017-2018): Link
• Associate Editor: Wetlands (2016-present): Link
• Editorial Board: Land Degradation and Development (2015-2016): Link
• Editorial Board: Scientific Reports (2016-2018): Link

ASSESSMENT PANELS

• New Zealand Ministry of Business, Innovation and Employment Endeavour Fund College of Assessors (2020 – present): Link
• Reviewer for Australian Research Council Discovery Program, Linkage Program and Discovery Early Career Research Award Program

COMMITTEES

• Vice-Chair: Working Group Acid Sulfate Soils – International Union of Soil Scientists (2018-present)
• Federal Vice-President: Soil Science Australia (2018-present)
• Executive Committee Member: Early Mid-Career Researcher Forum. Australian Academy of Science. (2018-present); Chair (2019); Co-deputy Chair (2020)
• President of the Victorian Branch: Soil Science Australia (2015-2018)
• Chair of the Soil, Environment and Ecosystem Interactions Sub Division of the Soil System Sciences Division, European Geosciences Union (2014-2016)
• President: Australian Regolith Geoscientists Association (2014-2016)
• Secretary of the Victorian Branch: Soil Science Australia (2012-2014)
• Northern Rivers representative of the NSW Branch: Soil Science Australia (2010-2011)
• Secretary of the Environmental, Engineering and Hydrogeology specialist group, Geological Society of Australia (2008-2011)
• Treasurer of the Environmental, Engineering and Hydrogeology specialist group: Geological Society of Australia (2007-2008)
TEACHING

BSc Adv: Course Coordinator. 2018-present
BSc Geographical Science major coordinator 2013-2017

EAE1022: Earth, Atmosphere and Environment II. 2017-present
ATS1310: Natural Hazards and Human Vulnerability. 2011-present
EAE2322: Environmental Earth Science. 2017-present (Co-ordinator)
EAE3211: Soils and land management. 2018 – present (Co-ordinator)
ESC3788: Soils, landscapes and their management. 2012-2017 (Co-ordinator)
ENS5010: Global Challenges and Sustainability 2017-present
ATS1301: Australian Physical Environments. 2011-2016 (Co-ordinator)
ATS2774: Understanding Australian Environments – Soil-vegetation dynamics. 2011-2016 (Co-ordinator)

RESEARCH SUPERVISION

Current PhD Students
The role of organic matter in acid sulfate soil formation
Biogeography of coastal wetlands
Advanced novel applications of the biochar produced as a waste material
Greenhouse gas emissions from coastal acid sulfate soil environments
An investigation into the occurrence of $^{239,240}$Pu in Australian sediments and modelling their migration through a unique environment

Completed PhD Students
Building artificial soils from industrial waste products for mine rehabilitation
Rehabilitation of the waste rock dump in the Latrobe Valley using different types of vegetation
Feasibility of improving fertilizer N and P use efficiency through organic and inorganic fertilizer blending

Current Masters Students
Development of dairy manure management systems for intensified dairy farms
Quantifying acidity in coastal wetlands in Westernport Bay

Completed Masters Students
Assessing bioavailability of herbicides in contrasting soils using the DGT method
How do farmer attitudes to soil health compare between conventional and alternative farming systems in Victoria, Australia

Current Honours Students
As availability in calcined sands in the Bendigo region
The effect of fire retardant application on soil properties

Completed Honours Students
Characterising acid sulfate soils in saltmarsh and mangrove environments in Tooradin, Victoria
The effects of agricultural intensification on soil fertility in the Kingdom of Tonga
The effects of Aquasil on infiltration in vineyard soils
Soil and sediment carbon stocks and cycling in the coastal zone
The effects of organic cake application to agricultural land on soil chemistry and plant growth
Identifying sources of acidity in the Salt Creek sub-catchment of the Anglesea River
The distribution and mineral economic potential of critical metals in Victorian soils
Nutrient availability on heat-affected chicken litter as an agricultural organic amendment
Identifying sources of Australian continental dust flux to the Indian Ocean
The effect of soil phosphorus on germination, growth and health of two Australian species
The impact of land use, soil type and drought on nutrient concentrations and water quality in Victoria
Identifying sources of acidity in the upper catchment of the Anglesea River
Potential “blue carbon” sequestration in mangroves and saltmarshes along southern Victoria
Understanding the sources and forms of acidity on the Anglesea floodplain
The effects of remediation of an acid sulfate soil scald on soil chemistry
The effects of remediation of an acid sulfate soil scald on soil organic carbon pools
Manufacturing an artificial soil using waste streams for successful minesite rehabilitation

PUBLICATIONS

BOOK CHAPTERS


REFEREED JOURNAL ARTICLES


**INVITED REVIEWS**


**CONFERENCE ABSTRACTS**


**Technical Reports**


Annexure B
13 August 2020

Associate Professor Vanessa Wong  
School of Earth, Atmosphere and Environment  
Monash University

*By email only:* vanessa.wong@monash.edu

Dear Associate Professor Wong

**AGL/APA Gas Import Jetty and Pipeline Project at Crib Point, Victoria**

We act on behalf of Submitter 3088, Submitter 3129 and Submitter 3004. We write to you on behalf of Submitter 3129.

We write to you as an expert soil scientist, with a specialisation in acid sulfate soil research. The purpose of this letter is to seek your expert opinion on the soil contamination aspects of the Crib Point Gas Import Jetty and Crib Point to Pakenham Pipeline project (*the project*).

We seek your preliminary opinion to be provided (written or verbal) by **19 August 2020**. Your preliminary opinion will inform our client in preparing its written submission due on 26 August 2020.

We also request your expert opinion be provided as an expert witness report to be submitted to the Inquiry and Advisory Committee. We request that your expert report be provided by **23 September 2020**.

References to Tab numbers in bold in this letter are to the documents in an electronic brief which we provide to you via DropBox (https://www.dropbox.com/sh/d3i0c0wt2hdmn1e/AADK8NS2VWWaeQm5BANbyIRwa?dl=0).

**Background**

1. **AGL Wholesale Gas Ltd (AGL) and APA Transmission Pty Ltd (APA)** propose a new facility for importing and regasifying liquefied natural gas (**LNG**) and supplying it to the gas transmission network. The project comprises two main components:
a. Gas Import Jetty Works comprising a floating storage and regasification unit (FSRU) at Crib Point Jetty, jetty infrastructure including marine loading arms and gas piping on the jetty, and the Crib Point Receiving Facility on land adjacent to the jetty.

b. Pipeline Works consisting of an underground gas transmission pipeline approximately 57 kilometres long to transport gas from the Crib Point Receiving Facility to the Victorian Transmission System east of Pakenham, and associated infrastructure (see description at Tab A.1.1).

2. On 8 October 2018 the Minister for Planning issued a decision determining that an Environment Effects Statement (EES) was required for the project due to the potential for a range of significant environmental effects. The purpose of the EES is to provide a sufficiently detailed description of the proposed project, assess its potential effects on the environment and assess alternative project layouts, designs and approaches to avoid and mitigate effects.

3. An Inquiry and Advisory Committee (IAC) will be appointed to review the EES and public submissions. The IAC will hold public hearings for 6 to 8 weeks, after which it will produce a report for the Minister for Planning. Following receipt of the IAC’s report, the Minister for Planning will then make an assessment as to whether the likely environmental effects of the project are acceptable (Minister’s Assessment).

4. The EES includes 27 substantive chapters and 17 technical reports addressing a range of topics. All EES documents are available online at: https://www.gasimportprojectvictoria.com.au/environment-effects-statement#view-the-ees. However, we seek your review and opinion only of the EES documents relevant to your expertise (soil science) to assist in informing the submissions to be made by our client.

Instructions

5. We request that you prepare a report providing your expert opinion on the following matters:

   a. Review the Contamination and Acid Sulfate Soils Impact Assessment (Technical Report E) (Tab A.2.1) and relevant appendices.

   b. Review the following chapters and attachments (as far as they are relevant to your expertise):

      i. Project description (Chapter 4) (Tab A.1.1)

      ii. Contamination and acid sulfate soils (Chapter 10) (Tab A.1.5)
iii. Terrestrial and freshwater biodiversity (Chapter 7) (Tab A.1.2), Surface water (Chapter 8) (Tab A.1.3), and Groundwater (Chapter 9) (Tab A.1.4)

iv. Environmental Management Framework (Chapter 25) (Tab A.1.6)

v. Legislation and policy report (Attachment II) (pp 21-24) (Tab A.3.1)

vi. Environmental Risk Report (Attachment III) (Tab A.3.2)

c. The appropriateness of the methodology used to assess the contamination and acid sulfate soil impact arising from the project.

d. Actual or likely impacts arising from the project, including impacts on flora, fauna and surface/ground water.

e. Whether the actual or likely risks are identified and or appropriately assessed in terms their level of risk.

f. The effectiveness of any ameliorative or compensatory measures proposed to account for the contamination impacts arising from the project.

g. Any appropriate qualifications or conditions that should be attached to findings or conclusions, such as uncertainties or gravity of threats or impacts.

6. As an expert you are able to consider any such material you consider relevant to your enquiry. Please identify in your report any further materials you consult outside of the briefed materials.

Expert Witness Code of Conduct

7. We have enclosed a copy of the Guide to Expert Evidence provided by Planning Panels Victoria, which is the relevant guidance for hearings before the IAC (Tab B.1).

8. In preparing your final expert witness report, please ensure that you include:

   a. your name, address, qualifications, experience and area of expertise

   b. details of any other significant contributors to the report (if there are any) and their expertise
c. all instructions that define the scope of the statement (original and supplementary and whether in writing or verbal)

d. details and qualifications of any person who carried out any tests or experiments upon which the expert has relied in preparing the statement

e. the following declaration:

‘I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.’

Important dates

9. We seek your preliminary opinion to be provided (written or verbal) by 19 August 2020. We also request your expert witness report be provided by 23 September 2020.

10. The IAC will conduct public hearings over a period of 6-8 weeks, commencing on 12 October 2020. We anticipate that you will be called to give evidence before the IAC at the public hearings. Please advise of the days on which you will not be available to give evidence before the IAC (if required) during the period of 12 October to 30 November 2020.

Confidentiality

11. This request for an expert opinion and the subsequent report, as well as any correspondence relating to this request, is for the purposes of the Crib Point Gas Import Jetty and Crib Point to Pakenham Pipeline project EES process, including the public hearings before the IAC. It is therefore confidential and is protected by legal professional privilege.

Fees

Please contact Virginia Trescowthick if you have any questions or require further information.

Yours faithfully

Virginia Trescowthick
Lawyer