17 January 2025

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Mirvac Projects Pty Ltd
L 28, 200 George Street
Sydney NSW 2000

Attention: Susan Paul

Dear Susan

Aspect Industrial Estate
SSD-10448 MOD9 and SSD-60513208 MOD2

SLR prepared an Air Quality Impact Assessment (AQIA) for the proposed Aspect Industrial estate (AIE) (SLR 2020) to be developed at 788-882 Mamre Road, Kemps Creek (Lot 301 DP1305254, Lot 105 DP1305965, Lot 305, DP1305254 and Lot 104, DP1305965) in October 2020.

In relation to potential impacts from the proposed development, the AQIA for the whole AIE concluded that:

- Off-site impacts associated with dust deposition and suspended particulate during the construction phase (including remediation) are anticipated to be *low* for demolition, earthworks, building construction and trackout activities.
- The construction of other projects in the area is likely to have been completed and therefore unlikely to coincide with the construction and operations of AIE Site, therefore reducing the likelihood of cumulative impacts.
- Based on the anticipated warehousing activities (storage and distribution) at the AIE Site, the potential for offsite air impacts from the operations is concluded to be neutral.

A number of modifications are now proposed for Warehouse 8 including changes to area, boundary, car parking, heavy vehicle crossings, ingress and egress as set out in the Concept Plan SSD-10448 within the AIE and SSD-60513208. Mirvac is now seeking approval for modification of the Concept Proposal and Stage 1 Development under SSD-10448 (MOD 9) and base build of 'Warehouse 8' under SSD-60513208 (MOD 2).

The review of the implications of these proposed modifications on the original conclusions from the 2020 AQIA indicated that no significant changes in construction or operational phase are expected due to the reconfigured Warehouse 8 or the main operational activity expected to be performed at the AIE Site (warehousing activities i.e. storage and distribution), therefore there are no significant changes expected to the risk of air emissions from the operational phase.

Yours sincerely

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1 Introduction

SLR prepared an Air Quality Impact Assessment (AQIA) for a proposed industrial estate (SLR 2020) to be developed at 788-882 Mamre Road, Kemps Creek (Lot 301 DP1305254, Lot 105 DP1305965, Lot 305, DP1305254 and Lot 104, DP1305965) (the Development Site) in October 2020.

Concept Consent was granted for the development of AIE by way of SSD-10448 on 24 May 2022 for:

- A Concept Masterplan for the Aspect Industrial Estate (AIE).
- Detailed Stage 1 Development of the AIE, which includes pre-commencement works, subdivision construction works, building works, subdivision of Stage 1, and signage.

Modifications to the configuration of 'Warehouse 8' within the AIE is now proposed. The information attached to this letter presents a review of the implications of these proposed modifications on the original conclusions from the 2020 AQIA prepared by SLR for the AIE.

2 Background

The AQIA was prepared to inform development application SSD-10448 for a Concept Masterplan comprising 11 industrial (warehouse) buildings, internal road network, car parking, concept landscaping, setbacks and built form parameters. The original Concept Masterplan for the AIE is shown in **Figure 1**.

Figure 1 Original Concept Masterplan of the Aspect Industrial Estate

Source: SBA Architects 2019

2.1 AQIA Methodology

Impacts from the AIE Site during both construction and operation phases were assessed using a risk-based methodology, as described below.

2.1.1 Assessment of Impacts from Construction

To assess dust emissions during construction, the *IAQM Guidance on the Assessment of Dust from Demolition and Construction* developed in the United Kingdom by the Institute of Air Quality Management ([IAQM], Holman *et al* 2014) was used to provide a qualitative assessment method. The IAQM method uses a four-step process for assessing dust impacts from construction activities:

- **Step 1**: Screening based on distance to the nearest sensitive receptor; whereby the sensitivity to dust deposition and human health impacts of the identified sensitive receptors is determined.
- **Step 2**: Assess risk of dust effects from activities based on:
  - the scale and nature of the works, which determines the potential dust emission magnitude; and
  - the sensitivity of the area surrounding dust-generating activities.
- **Step 3**: Determine site-specific mitigation for remaining activities with greater than negligible effects.
- **Step 4**: Assess significance of remaining activities after management measures have been considered.

2.1.2 Assessment of Impacts from Warehouse Operations

To assess the risk of air emissions from the AIE Site impacting on surrounding sensitive receptors during the operational phase, the following "risk based" approach was adopted.

The risk-based assessment takes account of a range of impact descriptors, including the following:

- **Nature of Impact**: does the impact result in an adverse, neutral or beneficial environment?
- **Receptor Sensitivity**: how sensitive is the receiving environment to the anticipated impacts?
- **Magnitude**: what is the anticipated scale of the impact?

2.2 AQIA Findings

2.2.1 Impacts During Construction

Step 1: Since a number of 'human receptors' were identified as being located within 350 m of the boundary of the site, and within 500 m of the site entrance, further assessment was concluded to be required based on the IAQM screening criteria.

Step 2: Based on the proposed scale of works at the AIE Site, the dust emission magnitudes for each phase of the construction works were categorised as follows:

- Demolition Medium
- Earthworks Large
- Construction Large
- Trackout Large

Based on IAQM definitions, the sensitivity of the residential receptors surrounding the AIE Site was concluded to be *high* for both health impacts and dust soiling due to location and expected pattern of land use. The sensitivity of the area to both dust soiling and health effects, however, was classified as *low* given the receptor sensitivity, background PM_{10} levels, and number of existing sensitive receptors in the vicinity. Given the low sensitivity of the general area for dust soiling and health effects, and the dust emission magnitudes for the various construction phase activities, the resulting risk of air quality impacts was as presented in **Table 1**.

Table 1 Preliminary Risk of Air Quality Impacts from Construction Activities (Uncontrolled)

Impact	Sensitivity of Area	Dust Emission Magnitude				Preliminary Risk			
		Demolition	Earthworks	Construction	Trackout	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Low	Medium	Large	Large	Large	Low Risk	Low Risk	Low Risk	Low Risk
Human Health	Low					Low Risk	Low Risk	Low Risk	Low Risk

Source: Table 9 of 610.19127-R01-v1.4, SLR, 2020

Step 3: **Table 2** reproduces the relevant mitigation measures identified in the AQIA as being recommended by the IAQM methodology dependent on the level of risk associated with the development. Not all these measures would be practical or relevant to the proposed AIE Site, therefore the AQIA recommended a detailed review of the measures be performed, with the most appropriate measures to be adopted.

Table Key

H = Highly recommended;
D = Desirable
N = Not required

Table 2 Site-Specific Management Measures Recommended by the IAQM

	Mitigation Measure	Duty
1	**Communications**	
1.1	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.	H
1.2	Display the head or regional office contact information.	H
1.3	Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority.	D
2	**Site Management**	
2.1	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	H
2.2	Make the complaints log available to the local authority when asked.	H
2.3	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.	H

	Mitigation Measure	Duty
3	**Monitoring**	
3.1	Perform daily on-site and off-site inspections where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary.	D
3.2	Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority, when asked.	H
3.3	Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.	H
4	**Preparing and Maintaining the Site**	
4.1	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	H
4.2	Erect solid screens or barriers around dusty activities or the site boundary that is at least as high as any stockpiles on site.	H
4.3	Keep site fencing, barriers and scaffolding clean using wet methods.	D
4.4	Cover, seed or fence stockpiles to prevent wind erosion	D
5	**Operating Vehicle/Machinery and Sustainable Travel**	
5.1	Ensure all on-road vehicles comply with relevant vehicle emission standards, where applicable	H
5.2	Ensure all vehicles switch off engines when stationary - no idling vehicles	H
5.3	Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable	H
6	**Operations**	
6.1	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/ mitigation, using non-potable water where possible and appropriate	H
6.2	Use enclosed chutes and conveyors and covered skips	H
6.3	Minimise drop heights from loading shovels and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate	H
7	**Waste Management**	
7.1	Avoid bonfires and burning of waste materials.	H
8	**Construction**	
8.1	Avoid scabbling (roughening of concrete surfaces) if possible	D
8.2	Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.	D
9	**Trackout**	
9.1	Use water-assisted dust sweeper(s) on the access and local roads to remove, as necessary, any material tracked out of the site.	D
9.2	Avoid dry sweeping of large areas.	D
9.3	Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.	D
9.4	Record all inspections of haul routes and any subsequent action in a site log book.	D
9.5	Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).	D

Source: Table 10 of 610.19127-R01-v1.4, SLR, 2020

Step 4: A reassessment of the predicted uncontrolled air quality impacts on surrounding sensitive receptors was presented in the AQIA to demonstrate the opportunity for minimising risks associated with the use of mitigation strategies. The remaining risks are termed 'residual impacts'. As presented in **Table 3**, the mitigated dust deposition and human health impacts for all construction activities were anticipated to be *negligible*.

Table 3 Residual Risk of Air Quality Impacts from Construction

Impact	Sensitivity of Area	Residual Risk			
		Demolition	Earthworks	Construction	Trackout
Dust Soiling	Low	Negligible Risk	Negligible Risk	Negligible Risk	Negligible Risk
Human Health	Low	Negligible Risk	Negligible Risk	Negligible Risk	Negligible Risk

Source: Table 11 of 610.19127-R01-v1.4, SLR, 2020

2.2.2 Impacts During Operations

The only operational activities identified as having potential to impact on air quality during the operational phase were traffic emissions from light and heavy vehicles accessing and moving around the AIE. The operational phase impacts were assessed using a risk-based assessment method considering the following impact descriptors:

- **Nature of Impact**: The nature of impact was anticipated to be *adverse* to the environment.
- **Receptor Sensitivity**: The nearest sensitive receptors to the AIE Site include residences within 100 m of the boundary. In terms of the methodology, the sensitivity of the surrounding residential areas to emissions from the AIE Site was considered to be *high*.
- **Magnitude**: Based on the relatively small amount of traffic movements projected to occur on site, the magnitude of these emissions was considered to be *negligible*.

Given the above considerations, and the scale of operations, the potential impact of the AIE Site operations on air quality at the nearest sensitive receptors was concluded to be ***neutral*** for all receptors (see **Table 4**).

Table 4 Impact Significance

Magnitude / Sensitivity	Substantial Magnitude	Moderate Magnitude	Slight Magnitude	Negligible Magnitude
Very High Sensitivity	Major Significance	Major/ Intermediate Significance	Intermediate Significance	Neutral Significance
High Sensitivity	Major/ Intermediate Significance	Intermediate Significance	Intermediate/Minor Significance	Neutral Significance
Medium Sensitivity	Intermediate Significance	Intermediate/Minor Significance	Minor Significance	Neutral Significance
Low Sensitivity	Intermediate/Minor Significance	Minor Significance	Minor/Neutral Significance	Neutral Significance

Source: Table 12 of 610.19127-R01-v1.4, SLR, 2020

3 Project Description – SSD-10448 (MOD 9) and SSD-60513208 (MOD 2)

This report has been prepared in support of a concurrent Concept Proposal modification application to SSD-10448 (MOD 9) and a Stage 4 modification application to SSD-60513208 (MOD 2) to update the Warehouse 8 / Lot 8 development layout within 788-882 Mamre Road, Kemps Creek (Lot 301 DP1305254, Lot 105 DP1305965, Lot 305, DP1305254 and Lot 104, DP1305965) known as Aspect Industrial Estate (AIE).

The proposed modification applications seek to support the intended operations through updates to the following approved elements of the Concept Proposal Development under SSD-10448 MOD 9 and a Stage 4 Development under SSD-60513208 MOD 2:

- Modifications to the Warehouse 8 building layout, including the addition of a storeroom office and modifications to the office location and layout. The proposal will modify the approved Warehouse 8 GFA as follows:
  - Warehouse GFA: 39,800 m^2 (-400 m^2)
  - Main Office GFA: 2,000 m^2 (+1,150 m^2)
  - Dock Office GFA: 370 m^2 (+70 m)
  - Storeroom GFA: 460 m^2 (+460 m^2)
- Modifications to on-lot car parking numbers and location. The development as proposed to be modified will include 197 on-lot car parking spaces at Warehouse / Lot 8 (addition of 16 spaces)
- Modification to the Warehouse 8 loading area, docks and awning layout.
- Modification to the car park and loading dock ingress/egress to Access Road 4.
- Modifications to the on-lot landscaping and tree canopy coverage.
- Modifications to location of fire-fighting infrastructure.

Generally, the proposed development on Lot 8 within AIE includes minor on-lot earthworks, installation of on-lot infrastructure, and the construction of a warehouse, landscaping, hardstand and car parking. This also includes the construction of two heavy vehicle crossings and one car park crossing to Access Road 4. The lot location and built form configuration will align with that intended to be established under the SSD-10448 MOD 6.

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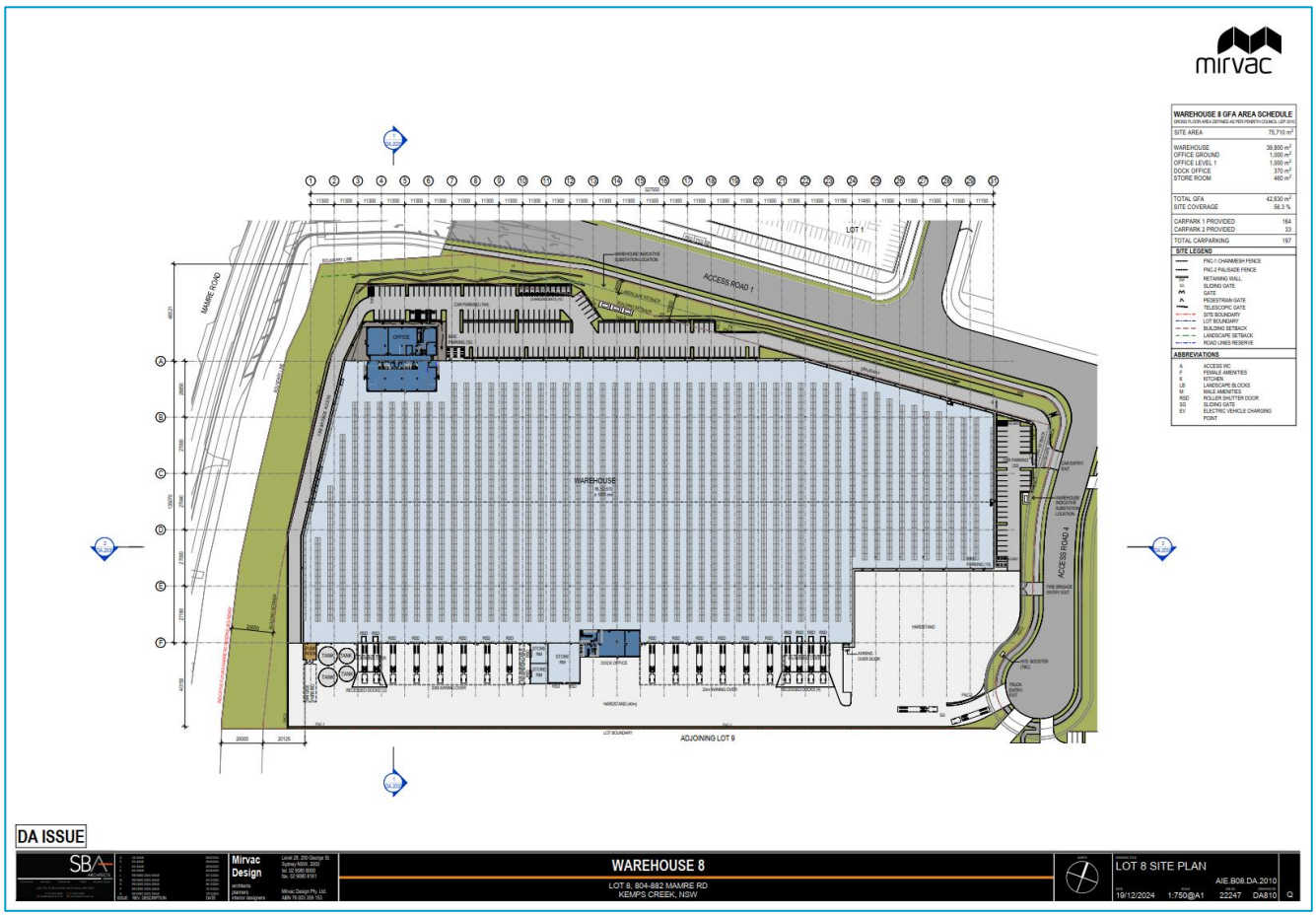
Figure 2 Warehouse Lot 8 Site Plan



Source: SBA Architects, 19 December 2024

4 Implications of the Proposed Modifications on the AQIA Conclusions

A number of modifications are now proposed for Warehouse 8 including changes to area, boundary, car parking, heavy vehicle crossings, ingress and egress as set out in the Concept Plan SSD-10448 8 within the AIE. As part of the staged development of Aspect Industrial Estate, Mirvac is seeking approval for modification of the Concept Proposal and Stage 1 Development under SSD-10448 (MOD 9) and for base build of Warehouse 8 under SSD-60513208 (MOD 2).

The main air quality issue associated with construction works relate to emissions of fugitive dust. The potential for dust to be emitted during the construction works will be directly influenced by the nature of the activities being performed at any given time. No significant changes in construction activities are expected due to the modifications required for Warehouse 8. Therefore, the dust emission magnitudes for each phase of the construction works remain the same as that presented in the AQIA and **Section 2.2.1** of this letter. Furthermore, no changes in the mitigation strategies would be recommended because of the proposed modifications.

SLR understands that the main operational activity expected to be performed at the AIE Site is warehousing activities (storage and distribution). Therefore, during the operational phase, the main source of air emissions would be emissions of products of fuel combustion and particulate matter (from brake and tyre wear as well as re-entrainment of road dust) associated with the trucks and other vehicles entering and leaving the AIE Site. There are no significant changes in the location or distance travelled are anticipated that would be expected to change the risk of air emissions from the operational phase.

Given the proposed modifications and the risk-based assessment method, it is concluded that the proposed modifications do not cause any major change in the original conclusions of the AQIA.

5 Conclusion

SLR was commissioned by Mirvac to investigate the implications of the proposed development on Warehouse 8 on the AQIA undertaken for the AIE located at 788-882 Mamre Road, Kemps Creek, New South Wales (NSW). Based on a review of the revised concept plan of the Development Site, SLR does not envisage any major change in the conclusions of the original AQIA (19 October 2020) due to the proposed modifications. The risk of off-site air quality impacts from the revised concept plan of the AIE Site during the construction and operation phases is concluded to be as follows:

- Off-site impacts associated with dust deposition and suspended particulate during the construction phase are anticipated to be *negligible* for demolition, earthworks, building construction and trackout activities if dust control measures are implemented in line with good industry practice.
- The construction of other projects in the area (i.e. Kemps Creek Industrial Estate and Oakdale West Estate) is likely to have been completed and therefore unlikely to coincide with the construction and operations of AIE Site, therefore reducing the likelihood of cumulative impacts.
- Based on warehousing (storage and distribution) activities only being undertaken at the AIE Site, the potential for offsite air impacts from the operations is concluded to be *neutral*.

6 References

- Holman *et al* 2014, *IAQM Guidance on the assessment of dust from demolition and construction,* Institute of Air Quality Management, London. http://www.iaqm.co.uk/text/guidance/construction-dust-2014.pdf.
- SLR. (2020). *Aspect Industrial Estate – Air Quality and Odour Impact Assessment* (610.19127-R01-v1.4).
- SBA Architects. (2019). *Aspect Industrial Estate – SSDA Masterplan* (Drawing No. MP 02).
- SBA Architects. (2024). *Aspect Industrial Estate – SSDA MOD 6 Estate Masterplan* (Drawing No. MP5-02).
- SBA Architects. (2024). *Aspect Industrial Estate – Lot8 Site Plan* (Drawing No. DA810).

APPENDIX A

Operational Assessment Methodology

The risk-based assessment takes account of a range of impact descriptors, including the following:

- **Nature of Impact**: does the impact result in an adverse or beneficial environment?
- **Sensitivity**: how sensitive is the receiving environment to the anticipated impacts? This may be applied to the sensitivity of the environment in a regional context or specific receptor locations.
- **Magnitude**: what is the anticipated scale of the impact?

The integration of receptor sensitivity with impact magnitude is used to derive the predicted **significance** of that change.

Nature of Impact

Predicted impacts may be described in terms of the overall effect upon the environment:

- **Beneficial**: the predicted impact will cause a beneficial effect on the receiving environment.
- **Neutral**: the predicted impact will cause neither a beneficial nor adverse effect.
- **Adverse**: the predicted impact will cause an adverse effect on the receiving environment.

Receptor Sensitivity

Sensitivity may vary with the anticipated impact or effect. A receptor may be determined to have varying sensitivity to different environmental changes, for example, a high sensitivity to changes in air quality, but low sensitivity to noise impacts. Sensitivity may also be derived from statutory designation which is designed to protect the receptor from such impacts.

Sensitivity terminology may vary depending upon the environmental effect, but generally this may be described in accordance with the broad categories outlined in **Table A1**, which has been used in this assessment to define the sensitivity of receptors to air quality impacts.

Table A1 Methodology for Assessing Sensitivity of a Receptor to Air Quality Impacts

Sensitivity	Criteria
Very High	Receptors of very high sensitivity to air pollution (eg dust or odour) such as: hospitals and clinics, retirement homes, painting and furnishing businesses, hi-tech industries and food processing.
High	Receptors of high sensitivity to air pollution, such as: schools, residential areas, food retailers, glasshouses and nurseries, horticultural land and offices.
Medium	Receptors of medium sensitivity to air pollution, such as: farms, outdoor storage, light and heavy industry.
Low	All other air quality sensitive receptors not identified above.

Magnitude of Impact

Magnitude describes the anticipated scale of the anticipated environmental change in terms of how that impact may cause a change to baseline conditions. **Table A2** outlines the methodology used in this assessment to define the magnitude of the identified potential air quality impacts.

Table A2 Methodology for Assessing Magnitude of Impacts

Magnitude	Description
Substantial	Impact is predicted to cause significant consequences on the receiving environment (may be adverse or beneficial)
Moderate	Impact is predicted to possibly cause statutory objectives/standards to be exceeded (may be adverse)
Slight	Predicted impact may be tolerated.
Negligible	Impact is predicted to cause no significant consequences.

Significance of Impact

The risk-based matrix provided below illustrates how the definition of the sensitivity and magnitude interact to produce impact significance.

Table A3 Impact Significance Matrix

Sensitivity \ Magnitude		[Defined by Table A2]			
		Substantial Magnitude	Moderate Magnitude	Slight Magnitude	Negligible Magnitude
[Defined by Table A1]	**Very High Sensitivity**	Major Significance	Major/ Intermediate Significance	Intermediate Significance	Neutral Significance
	High Sensitivity	Major/ Intermediate Significance	Intermediate Significance	Intermediate/Minor Significance	Neutral Significance
	Medium Sensitivity	Intermediate Significance	Intermediate/Minor Significance	Minor Significance	Neutral Significance
	Low Sensitivity	Intermediate/Minor Significance	Minor Significance	Minor/Neutral Significance	Neutral Significance