Independent limited assurance report

What we found

Based on the work described below, nothing has come to our attention that causes us to believe that the Subject Matter for the year ended 30 June 2017 has not been prepared, in all material respects, in accordance with the Reporting Criteria.

To the Board of Directors of Mirvac Limited,

What we did

Mirvac Limited (**Mirvac**) engaged PricewaterhouseCoopers Australia (**PricewaterhouseCoopers**) to perform a limited assurance engagement on the preparation of selected Subject Matter contained within their 2017 Analyst Toolkit, in accordance with the Reporting Criteria for the year ended 30 June 2017. Some Subject Matter may also appear in their 2017 Annual Report.

Selected subject matter

The Subject Matter included within the scope of our engagement comprised environmental, health and safety and workforce metrics, which are contained within 2017 Analyst Toolkit at: http://annualreport.mirvac.com/downloads/ and presented in Appendix 1 to our Assurance Report.

Assurance Criteria

The criteria against which we assessed the Subject Matter was prepared by Mirvac and is titled 2017 Reporting Criteria Document presented at: http://annualreport.mirvac.com/downloads/ and included as Appendix 2 to our Assurance Report.

Independence and Quality Control

We have complied with relevant ethical requirements related to assurance engagements, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

PricewaterhouseCoopers applies Auditing Standard ASQC 1 *Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, Other Assurance Engagements and Related Services Engagements* and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Responsibilities

PricewaterhouseCoopers

Our responsibility is to express a conclusion based on the work we performed.

Mirvac

Mirvac management is responsible for the preparation and presentation of the Subject Matter in accordance with the Reporting Criteria.

What our work involved

We conducted our work in accordance with the Australian Standard on Assurance Engagements 3000 *Assurance Engagements Other than Audits or Reviews of Historical Financial Information* and Australian Standard on Assurance Engagements 3410 *Assurance Engagements on Greenhouse Gas Statements*. These standards require that we comply with independence and ethical requirements and plan the engagement so that it will be performed effectively.

Main procedures performed

Our procedures consisted primarily of:

- Undertaking enquiries of management regarding the processes and controls for capturing, collating and reporting the Subject Matter
- Reconciling the Subject Matter with Mirvac underlying records
- Agreeing underlying records back to supporting third party documentation on a sample basis
- Undertaking analytical review procedures over data and obtaining explanations from management regarding unusual or unexpected amounts
- Assessing the reasonableness of any material estimates made in preparing the Subject Matter and
- Reviewing Mirvac Reporting Criteria to ensure that it is appropriate for assurance and assessing the preparation and collation of the Subject Matter against the Reporting Criteria

We believe that the information we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Shannon Davis
Partner
17 August 2017

PricewaterhouseCoopers
Sydney

Liability limited by a scheme approved under Professional Standards Legislation

Inherent limitations

Inherent limitations exist in all assurance engagements due to the selective testing of the information being examined. Therefore fraud, error or non-compliance may occur and not be detected.

Additionally, non-financial data may be subject to more inherent limitations than financial data, given both its nature and the methods used for determining, calculating and sampling or estimating such data.

Restriction on use

This report has been prepared in accordance with our engagement terms to assist Mirvac in reporting its sustainability performance.

Our report is intended solely for the Directors of Mirvac. We do not accept or assume responsibility for the consequences of any reliance on this report for any other purpose or to any other person or organisation.

Any reliance on this report by any third party is entirely at its own risk. We consent to the inclusion of this report within Mirvac's online 2017 Sustainability Reporting suite at: http://annualreport.mirvac.com/downloads/ to assist Mirvac members in assessing whether the directors have discharged their responsibilities by commissioning an independent assurance report in connection with the selected Subject Matter.

We accept no responsibility for the integrity and security of the Mirvac website, which is the responsibility of Mirvac management. This report is not intended to relate to, or to be read in conjunction with, any information that may appear on the Mirvac website other than the Subject Matter and Reporting Criteria. Readers of this report on the Mirvac website (who may read it for their information only) should bear in mind the inherent risk of the website changing after the date of our report.

Limited assurance

This engagement is aimed at obtaining limited assurance for our conclusions. As a limited assurance engagement is restricted primarily to enquiries and analytical procedures and the work is substantially less detailed than that undertaken for a reasonable assurance engagement, the level of assurance is lower than would be obtained in a reasonable assurance engagement.

Professional standards require us to use negative wording in the conclusion of a limited assurance report.

Appendix 1: Subject Matter Assured

Energy and emissions

- Total Scope 1 GHG emissions: 4,640 tCO2e
- Total Scope 2 GHG emissions: 79,149 tCO2e
- Total Scope 3 GHG emissions: 23,627 tCO2e
- Total energy consumed: 436,101 (GJ)
- Total energy produced: 4,578 (GJ)

Water

- Water used by source by division: 527,127 kL for Retail, 474,154 kL for Office and Industrial
- Total Non-potable water captured and consumed: 71,970 kL

Waste

- Total waste generated by Investments: 24,654 tonnes
- Total waste generated by Construction: 23,469 tonnes
- Waste disposal split for Investments: 69% recycled, 31% landfill, 0% prescribed hazardous waste
- Waste disposal split for Construction: 95% recycled, 5% landfill, 0% prescribed hazardous waste

Health and safety

- Lost time injury frequency rate (LTIFR): 2.56
- Number of fatalities: 0

Workforce

- Employment type by gender table, showing number of people per gender per employment type (Casual, fixed term full-time, fixed term part-time, permanent full-time, permanent part-time, not paid):

	Female	Male
Casual	48	31
Fixed term full-time	29	33
Fixed term part-time	8	4
Permanent full-time	436	792
Permanent part-time	86	7
Total	607	867

- Board of Directors by age and gender table, showing number of Directors by gender per age category (under 30 years, 30-50 years, over 50 years):

	Female	Male
Under 30 years	0	0
30-50 years	1	0
Over 50 years	3	4
Total	4	4

- Employment by region and gender table, showing number of people by gender per state (NSW, QLD, WA, VIC and total):

State	Female	Male
Queensland	69	75
NSW	424	573
Victoria	86	180
Western Australia	28	39
Total	607	867

- Absenteeism table, showing absenteeism rate (%) by gender per region (NSW, QLD, WA, VIC and total):

	NSW		**QLD**		**VIC**		**WA**		**Total**	
Gender	F	M	F	M	F	M	F	M	F	M
Absenteeism Rate	1.60%	0.83%	1.30%	1.30%	0.70%	1.12%	0.84%	0.60%	1.41%	0.83%
Total	1.07%		1.27%		0.93%		0.65%		1.01%	

- Parental leave return table, showing number and percentage of people by gender by parental leave status (% entitled to parental leave, # on parental leave during FY17, # with return to work date in FY17, # returned to work, return to work rate (%)):

	Female	Male
Entitled to parental leave %	77%	80%
On parental leave during FY17	51	35
Return to work data in FY17	29	34
Return to work	29	34
Return to work rate (%)	100%	100%

- Gender breakdown table, showing number of people by gender by seniority (Mirvac, Mirvac Board, Mirvac Senior Executive Manager):

	Female	Male
Mirvac Group	41%	59%
Mirvac Board	50%	50%
Mirvac Senior Executive Manager	39%	61%

- Staff breakdown by average full-time equivalent (FTE) salary table, showing by job level the gender split and the female % of average male FTE salary (job levels 1-7 and Executive Leadership Team):

Job level	Female	Male
1	29%	71%
2	64%	36%
3	45%	55%
4	37%	63%
5	34%	66%
6	38%	63%
7	0%	100%
Executive Leadership Team	38%	63%

Appendix 2: Mirvac Limited 2017 Sustainability Reporting Criteria

The following criteria sets out the parameters and methodologies used by Mirvac Limited to prepare and report the select sustainability performance metrics assured by PricewaterhouseCoopers. These metrics have been reported in our 2017 Analyst Toolkit and some may be reported in our 2017 Annual Report which includes our sustainability report.

The sustainability performance indicators assured are set out below:

	Sustainability performance indicators
Re-imagining Resources	**Energy and emissions** • Total Scope 1 GHG[1] emissions for Mirvac Group (tCO_2e) • Total Scope 2 GHG emissions for Mirvac Group (tCO_2e) • Total Scope 3 GHG emissions for Mirvac Group (tCO_2e) • Total energy consumed by Mirvac Group (GJ) • Total energy produced by Mirvac Group (GJ)
	Water indicators • Water used by source by division (kL for Retail, kL for Office and Industrial) • Non-potable water captured and consumed (total kL for Mirvac Group)
	Waste indicators • Total waste generated per division (tonnes for Investment, tonnes for Construction) • Waste disposal split by division (% recycled, % landfill, % prescribed for Investment and % recycled, % landfill, % prescribed for Construction)
Smarter Thinking	**Health and safety** • Lost time injury frequency rate (Mirvac Group LTIFR) • Number of fatalities (total for Mirvac Group)
	Workforce • Employment type by gender table, showing number of people per gender per employment type (casual, fixed term full-time, fixed term part-time, permanent full-time, permanent part-time) • Board of Directors by age and gender table, showing number of Directors by gender per age category (under 30 years, 30-50 years, over 50 years) • Employment by region and gender table, showing number of employees by gender per state (NSW, QLD, WA, VIC and total) • Absenteeism table, showing absenteeism rate (%) by gender per region (NSW, QLD, WA, VIC and total) • Parental leave return table, showing number and percentage of people by gender by parental leave status (% entitled to parental leave, # on parental leave during FY17, # with return to work date in FY17, # returned to work, return to work rate (%)) • Gender breakdown table, showing number of people by gender by seniority (Mirvac Group, Mirvac Board, Mirvac Senior Executive Manager) • Staff breakdown by average full-time equivalent (FTE) salary table, showing by job level the gender split and the female % of average male FTE salary (job levels 1-7 and Executive Leadership Team)

[1] GHG refers to greenhouse gas

Reporting boundary and approach

Mirvac applied the following reporting boundary and approach in preparing the environmental performance metrics. Specific methods used for each performance metric are further outlined below.

Reporting boundary: Mirvac have reported on the sites and facilities under direct Mirvac Operational Control in Australia, including standing investments and construction sites. This is in alignment with the *National Greenhouse and Energy Reporting Act 2007.*

This Changes Everything commitments: Details on how Mirvac report on all sustainability commitments in our strategy, This Changes Everything, are available online at: http://www.mirvac.com/About/News/This-Changes-Everything/

Gap estimation: Gaps in data can occur, typically as a result of delays in utility providers providing billing data. Mirvac's methodologies are designed to use electronically metered data. Where both invoice and meter data is not available, Mirvac will develop estimates which are based on historical performance at a site. For certain Master Plan Community construction sites resource consumption (electricity, diesel, water) may be estimated based on the number of homes built during the year. These estimates have been developed by Mirvac through benchmarking studies of average resource requirements per home built using historical data for similar building types. Where estimates or extrapolations of data are necessary, these are subject to internal review.

Restatement: No prior year data has been restated within this reporting period.

Energy and Emissions

Total Energy Consumed

Energy consumed comprises purchased electricity, natural gas and stationary and transport fuels including diesel, liquid petroleum gas (LPG) and unleaded petrol. Transport fuel includes those used for all tools of trade cars managed by LeasePlan Australia.

Mirvac also has its own onsite generation facilities (cogeneration plants, solar photovoltaic arrays and diesel generators). The associated energy consumption measured includes the energy that is generated and consumed by Mirvac, as well as the fuels used to operate these generating units (i.e. natural gas and diesel).

The vast majority of Mirvac's energy data is compiled based on quantities invoiced by suppliers or meter data where billing data is not available. Where invoices or meter data are not available, Mirvac will estimate consumption using the gap estimation approach described above.

Quantities of electricity, natural gas and diesel usage are converted to gigajoules using the method specified within the *National Greenhouse and Energy Reporting (Measurement) Determination, July 2016.*

Total Energy Produced

Energy produced comprised energy generated from cogeneration plants and solar photovoltaic arrays for consumption onsite.

Energy generation amounts for individual generating units are only reported if the thresholds set out in Section 4.19 and 4.20 of the *National Greenhouse and Energy Reporting (Measurement) Determination, July 2016* are met – i.e. reporting is determined based on the capacity or actual generation output of the units. Where reporting thresholds are met, the electricity generated is quantified based on electricity consumption data reported in invoices by service providers or by on site sub meters. Where invoice data and metering data is unavailable, electricity generated is estimated based on the amount of natural gas consumed by the cogeneration engine and the average

efficiency of the engine. The total electricity generated is converted to gigajoules using the method specified within the *National Greenhouse and Energy Reporting (Measurement) Determination, July 2016.*

GHG Emissions

Scope 1 Direct Emissions: comprise GHG emissions associated with consumption of the following sources:

- Natural gas;
- Diesel;
- Unleaded petrol;
- Liquid petroleum gas (LPG); and
- Refrigerant gases.

Scope 1 emissions have been calculated according to the *National Greenhouse and Energy Reporting (Measurement) Determination, July 2016.*

Scope 2 Indirect emissions: comprise GHG emissions created by other facilities in the production of electricity that is consumed by Mirvac sites under operational control. Scope 2 emissions are calculated based on total electricity consumed, in accordance with the *National Greenhouse and Energy Reporting (Measurement) Determination, July 2016.*

Scope 3 Other Indirect emissions: include the greenhouse gas emitted by another facility as a consequence of Mirvac's activities, in equipment/facilities that are not owned by or controlled by Mirvac, excluding Scope 2 emissions. These include emissions arising from:

- Transmission and distribution losses associated with the production and transport of electricity, natural gas and other fuels consumed by Mirvac;
- Waste to landfill; and
- Domestic and international flights as well as car hire taken by Mirvac staff (see *Transport* below).

Apart from air travel, which is explained below, Scope 3 emissions have been calculated based on the consumption of the above sources, according to the *National Greenhouse Accounts (NGA) Factors, August 2016.*

Transport

Air travel

GHG emissions are reported to Mirvac by travel provider Flight Centre, as reported to them by their partner Cleaner Climate. Cleaner Climate derive their emission factors from a range of resource sources including UK Government DEFRA (Department for Environment Food and Rural Affairs), Oxford University and the UK Royal Commission on Environmental Pollution.

Method used by Cleaner Climate to calculate Scope 3 emissions from air travel: Cleaner Climate's co-efficient for flight travel is 0.231kg CO_2 released per passenger per km of flight for flights greater than or equal to 3701km, 0.205kg, CO_2 released per passenger per km of flight for flights between 1,108 and 3,700km inclusive, and 0.366kg CO_2 released per passenger per km of flight for flights less than 1,108km. This co-efficient assumes standard economy class travel, regardless of the class of travel taken by Mirvac staff, and is applied to all flight distances captured by Flight Centre during the reporting period.

Car hire

All Mirvac car hire arrangements are managed by Avis Australia who report to Mirvac all distances travelled by staff, fuel consumed and an estimate of GHG emissions which it bases on guidance from the Australian Government's *Green Vehicle Guide*. Reporting is broken down by travel within Australian states.

Water consumption

Potable Water Consumption

Potable water consumption comprises water supplied to Mirvac assets from local water authorities.

The vast majority of Mirvac's potable water consumption data is compiled based on quantities invoiced by suppliers or meter data where billing data is not available. Where invoices or meter data are not available, Mirvac will estimate consumption using the gap estimation approach described above.

For most assets, potable water consumption reported represents consumption for the whole building, including tenant consumption. For a number of properties, separate sub meters have been set up for particular tenants. Where tenant consumption can be quantified separately, this data is excluded from Mirvac's reporting boundary.

Aggregate potable water consumption is reported for all retail assets, and all office and industrial assets combined.

Non-Potable Water Consumption

Non-potable water consumption comprises water captured and consumed which is derived from non-potable sources. There are several sources of captured water used in Mirvac's portfolio: rainwater, condensate water, grey water, black water, and mains reticulated recycled water. Captured water is measured in kilolitres using water meters.

Waste generated

Total Waste Disposal by Division, Waste Disposal % by Division

Figures reported represent the mass of total waste generated by Mirvac's investment and construction divisions. Waste reported is based on weight quantities invoiced by Mirvac's waste and cleaning contractors who remove waste on behalf of Mirvac and its tenants. Invoices report both the quantity of waste sent to landfill and the quantity diverted to recycling.

Waste quantities may be initially measured by waste contractors based on weight or based on volume. Where waste is measured in volume rather than the actual weight, the waste contractor may apply its own conversion factor to derive an estimate of weight. For some assets and waste streams, Mirvac may opt to convert volume data by applying its own conversion factors. These may be based on industry guidelines (i.e. those published by Better Building Partnership) or may be based on those developed by Mirvac as a result of periodical weigh-offs conducted by Mirvac.

A number of Mirvac tenants manage their own recycling for particular waste streams, such as secure paper and organic food recovery. Where this data is provided by tenants, Mirvac includes it in its reporting boundary. Tenant supplied data represents approximately 5.6% of total waste generated by Mirvac's Investments division. For certain tenants and waste streams, waste quantities are estimated based on information provided by tenants such as bin size, average fullness and collection frequency. Mirvac estimate the quantity of waste in weight based on tenant advice or industry guidelines.

The mass of waste to landfill, recycled waste or prescribed hazardous waste are reported as percentages of total waste for each division (construction and investment).

Health and Safety

Lost Time Injury Frequency Rate (LTIFR)

Mirvac reports and monitors the lost time injury frequency rate (LTIFR) per million hours worked in accordance with Australian Standard AS1885.1 Workplace Injury and Disease Recording Standard. The LTIFR is calculated as follows:

$$\text{LTIFR} = \frac{\text{Number of lost-time injuries} \times 1\,000{,}000}{\text{Total hours worked in accounting period}}$$

Definitions:

A lost-time injury: is defined as a work related occurrence that resulted in a fatality, permanent disability or injury resulting in time lost from work of one day/shift or more. Such incidents are tracked in Mirvac's HSE reporting system and supported by relevant medical certification.

Total hours worked in the accounting period: refers to the total number of hours worked by Mirvac personnel and construction contractors during the reporting period. The total hours worked is calculated as follows:

Head office staff:

Total hours worked (Mirvac personnel) = the sum of:

- The standard hours for each part time and full time employee for each day worked during the year; and
- The actual hours worked, for casual employees.

Staff working at retail, office and industrial sites:

Total hours worked (Mirvac personnel) = the sum of headcount for each month during the year x 50 hours per week x 4 weeks. "Headcount" is the number of staff recorded in Mirvac's payroll systems at each month end.

Total hours worked (contractors) = All hours automatically recorded in Mirvac's swipe card system during the year.

Staff working at residential sites:

Total hours worked (Mirvac personnel) = the sum of:

- The standard hours for each part time and full time employee for each day worked during the year; and
- The actual hours worked, for casual employees.

Construction staff:

Total hours worked (Mirvac personnel and contractors, excluding principle contractors): = Headcount x 10 hours per day x number of days worked in the month x 12 months. "Headcount" is recorded in a daily register based on the number of people working on site on a particular day.

Total number of fatalities

If a fatality occurs, the details of the fatality will be recorded in Mirvac's HSE reporting system and Mirvac's Extreme HSE Incident Response Committee is convened.

Workforce

Definition (Indigenous): Employees who self-identify as Aboriginal and Torres Strait Islander peoples as at 30 June 2017.

Source: Reconciliation Australia

The source for all other workforce data is the Chris21 Report Designer tool.

Employment type by gender

Definition: This accounts for all employees as at 30 June 2017. 'Full-time' employees include permanent full- time and fixed term full-time employees. 'Part-time' employees include permanent part-time and fixed term part-time employees.

Method: Head count of females and males expressed as a % of total employees within the same employment type.

Board Age and Gender Composition (see Analyst Toolkit)

Definition: All Non-Executive Directors as at 30 June 2017.

Method: Headcount of females and males expressed as a % of total headcount and by age category.

Employment by Region and Gender (see Analyst Toolkit)

Definition: All employees as at 30 June 2017, broken down by the state in which their main source of work exists. Note that NSW and ACT are combined.

Method: Head count of females and males expressed as a % of total employees within the same state.

Absenteeism (see Analyst Toolkit)

Definition: This accounts for all sick leave hours taken between 1 July 2016 and 30 June 2017.

Method: This is calculated by dividing the total number of hours of sick leave taken per state by the total number of productive hours in each state. Productive hours are defined as total standard hours plus any overtime incurred for FY17.

Parental leave return rate (see Annual Report & Analyst Toolkit)

Definition: This accounts for all employees who were on parental leave between 1 July 2016 and 30 June 2017.

Method: This is calculated by looking at the total number of males and females who were due to return to work after parental leave and comparing to those that actually returned in FY17..

Mirvac Group, Board & Senior Executive Manager Gender Profile % as at 30 June 2017

Definition (Group): Group accounts for all full-time, part-time, casual and fixed-term contractors within Mirvac as at 30 June 2017. Also includes Non-Executive Directors.

Definition (Senior Executive Manager): Position up to two reporting levels below the CEO/MD.

Definition (Board): All Non-Executive Directors at 30 June 2017.

Method: Head count of females and males expressed as a % of total head count.

Staff breakdown average FTE salary (see Analyst Toolkit)

Definition: This accounts for all employees as at 30 June 2017. Mirvac has eight job levels, ranging from one (lowest) to seven (highest) then the Executive Leadership Team. “FTE Salaries” are the salaries of all employees, including casuals and part timers, brought up to full time equivalent, i.e. 38 hours for 52 weeks + superannuation.

Method: (female salaries as % of male per level): Average female FTE salaries are divided by the average male FTE salaries in the same job level expressed as a percentage.

Method: (gender profile): Male and female employees are expressed as a percentage of the total employees within the same job level.