

# 2015 VCE Outdoor and Environmental Studies examination report

## General comments

The 2015 Outdoor and Environmental Studies examination was handled well by many students, but some found it challenging.

The following information may assist teachers and students in preparation for the examination.

- Students do not need to rewrite the question in their answer. Instead, they should use key words from the question in their answer. Being repetitive or restating the question does not attract marks.
- The key skills indicated in the study design are of great importance and should be understood so that the responses provided are of the required depth. Key skills are those such as 'describe', 'explain', 'analyse', 'compare', 'evaluate', 'predict', 'identify' and 'define'.
- Students should ensure that they have carefully read and understood questions before answering and avoid giving rote-learned answers.
- Students needed to carefully select a specific outdoor environment, Indigenous community or conflict when answering a particular question, ensuring their choice addressed the question and added detail to their answer.
- It is important that students used the selection boxes given on the examination paper to set the context for their answers.
- Students are advised to be specific and to enrich their answers with suitable examples where possible and appropriate to indicate the depth and breadth of their knowledge. Generalised statements are not appropriate and do not attract marks.
- The use of generic stereotypes is not always appropriate, and students are reminded to think carefully about what they are writing; for example, a stereotype that farming has a negative impact on the land is not accurate because in order for farmers to continue to generate an income they would need to sustain the land they work on.
- When a question asks students to refer to or use the data provided, full marks will not be awarded if students do not use the information provided in their response. Use of data can mean reference to the information provided in a graph or table, numerical data or reference to a relationship as shown in a graph.
- Where a longer answer is required, students are strongly advised to complete a brief plan first. A plan enables students to outline the main ideas they will cover and to order their responses before they begin to answer. The use of subheadings within a longer answer may also be appropriate, depending on the nature of the question.
- In addition to the key skills mentioned above, students need to understand study-specific terms such as 'European colonisation', 'indicators', 'portray', 'non-Indigenous settlers', 'contemporary', 'nation building', 'sustainability', 'industrialisation', 'threats', 'State of the Environment (SOE) themes', 'methods', 'influences', 'practices', 'relationships', 'impacts', 'increasing population' and 'actions'. Students also need to be able to use these terms in the context of specific questions and give appropriate examples rather than quoting using general definitions.

## Specific information

**Note: Student responses reproduced in this report have not been corrected for grammar, spelling or factual information.**

This report provides sample answers or an indication of what answers may have included. Unless otherwise stated, these are not intended to be exemplary or complete responses.

The statistics in this report may be subject to rounding resulting in a total more or less than 100 per cent.

### Question 1

| Marks | 0 | 1 | 2  | 3  | 4  | 5  | 6  | Average |
|-------|---|---|----|----|----|----|----|---------|
| %     | 7 | 8 | 12 | 16 | 17 | 19 | 21 | 3.7     |

Students needed to describe how each of the characteristics contributed to the creation of unique and diverse Australian outdoor environments.

Student descriptions in general appeared to be limited.

The following is an example of a high-scoring response.

- Biological isolation: After settling from breaking apart from Gondwana approximately 50 million years ago, The Australian continent was (and remains to be) surrounded by water. This lead to the success and domination of marsupials such as koalas and kangaroos as they were the dominant species upon seperation from Gondwana and little invasion of the other species could occur as a result of the lack of land mass surrounding the continent.*
- Geological stability: Upon breaking off from Gondwana approximately 50 million years ago, the Australian continent slowly drifted North to settle on the AustralAsian techtonic plate. This lack of fault lines through the continent has lead to a lack of geological movement, ultimately resulting in old, nutrient poor soils that only the toughest species such as Eucalypts can survive. Koalas eat enormous amounts of Eucalypt leaves to cater for the lack of nutritional value.*
- Climatic variation: The geological position of the Australian continent results in the country being heavily influenced by both El Nino and La Nina. This results in extensive periods of drought and a flood that create greate variation in the climate of Australia. Wombats' burrowing technique to escape the warmth, and Eucalypts side ways leaf positioning to avoid evaporation are both adaption to Australias variable climate.*

### Question 2a.

| Marks | 0  | 1  | 2  | Average |
|-------|----|----|----|---------|
| %     | 24 | 38 | 38 | 1.1     |

Students needed to select one environmental movement by ticking the box beside it, although there were no marks allocated for this.

Foundation dates (if accurate) were acceptable, but not essential.

The following is an example of a high-scoring response.

*The Wilderness Society: The Wilderness Society was founded in 1976 after a failed attempt at stopping the damming of Lake Peddar. The society was formed transform Australian society into one which connects with, conserves and protects the environment to keep it natural and wild.*

**Question 2b.**

| Marks | 0  | 1  | 2  | Average |
|-------|----|----|----|---------|
| %     | 16 | 27 | 57 | 1.4     |

Students needed to explain a key issue in which the selected movement had played a central role.

Acceptable key issues included those both current and past.

The following is an example of a high-scoring response.

*The Wilderness Society: The Wilderness Society was a major group opposed to the damming of the Franklin River for a hydroelectric scheme. The Wilderness Society rallied to have the river saved and protected for its natural and historic significance and were successful in saving it.*

**Question 2c.**

| Marks | 0  | 1  | 2  | 3  | 4  | Average |
|-------|----|----|----|----|----|---------|
| %     | 11 | 16 | 29 | 26 | 18 | 2.3     |

Students needed to evaluate the impact that the selected movement had on changing human relationships with a specific outdoor environment.

Student responses that did not reference a specific outdoor environment could not be awarded full marks.

The following is an example of a high-scoring response.

*The Wilderness Society: The Wilderness Society have been effective in changing societies relationship with the Franklin River in Tasmania. They altered peoples perceptions from viewing the river as a resource to exploit for cheap electricity, to instead viewing it as a beautiful wonder that needed to be protected and preserved for future generations to appreciate. Therefore people's actions were likely to be focusing on protecting nature and keep it free from human intervention. Overall the Wilderness Society was influenced in changing society to have positive relationships with nature.*

**Question 3a.**

| Marks | 0 | 1 | 2  | 3  | 4  | Average |
|-------|---|---|----|----|----|---------|
| %     | 3 | 6 | 52 | 23 | 17 | 2.5     |

Students needed to name a specific outdoor environment and a specific Indigenous community (relevant to the outdoor environment selected), which were used as the context for their response.

Student responses that were generic and not specific to the environment and Indigenous community selected could not be awarded full marks.

Relationships are inclusive of perceptions, interactions and/or impacts, and any combination of these could be used by students in their responses.

The following is an example of a high-scoring response.

*Hopkins River  
Gundjtimara Tribe*

*Spiritual or social relationship: The Gundjtimara Tribe had a deep spiritual connection with the Hopkins River, they viewed it as a temple and something to protect and preserve as they believed they were born from the land and would one day return to it, thus perceiving it as 'motherlike' and in need of care and respect.*

*Physical relationship: The Gundjtimara people lived off the land, the men would be the 'hunters' making fishing hooks out of kangaroo bone and line from the stretched ligaments of the kangaroos tail in order to*

*catch the various fish in the Hopkins River. Utilising various animal parts demonstrates their non-wasteful way of life and minimal impact lifestyle.*

**Question 3b.**

| Marks | 0  | 1  | 2  | 3  | 4 | Average |
|-------|----|----|----|----|---|---------|
| %     | 17 | 18 | 45 | 13 | 7 | 1.8     |

Students needed to describe a change in each aspect of the relationship after European colonisation.

Student responses that were generic and not specific to the environment and Indigenous community selected could not be awarded full marks.

This question was not answered well. It was clear that students needed to be more aware of how European colonisation affected the relationship of specific Indigenous communities.

*Hopkins River*

*Gunditjara Tribe*

*Spiritual or social relationship: The spiritual connection and respect for the Hopkins River which the Gunditjara people had did not change after European's arrived. They still maintained the same beliefs and perceptions but due to being dispossessed of their land were somewhat unable to show this connection as their sacred sites were taken and destroyed in the area.*

*Physical relationship: The Gunditjara people became less able to use the resources of the Hopkins River as Europeans too were fishing and depleting the resource. The Europeans unsustainable pollution of the waterways through their lifestyle meant they were unhealthy so the tribe began hunting introduced species such as sheep and cows so as to provide them a food source and means of survival in the growingly unhealthy land.*

**Question 4**

| Marks | 0 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 8  | Average |
|-------|---|---|---|----|----|----|----|----|----|---------|
| %     | 7 | 4 | 8 | 10 | 14 | 15 | 17 | 14 | 11 | 4.7     |

Students needed to name an outdoor environment that they had studied and select two influences by numbering the boxes beside them, which were used as the context for their response.

Students needed to describe the relationships humans had with the selected environment and analyse the impact that the influence had on the environment itself.

Student responses that were not specific to the environment selected, or not based in a historical context, could not be awarded full marks.

The following is an example of a high-scoring response.

*Outdoor environment: Bunurong coast*

*1 first non-Indigenous settlers' experiences*

*2 nation building*

*Influence 1: The perceptions of the first non-indigenous settlers involved seeing the land as terra nullis and a place that needed to be 'tamed'. As they saw the land as belonging to no one they saw it as an opportunity to generate wealth. The McHaffie Brothers were the first to Phillip Island and utilised its flat grounds with little rocks to clear for agricultural purposes. Sheep were introduced to Phillip Island for farming purposes. This negatively impacted the environment as it exposed the island to wind and soil erosion and the hard hooved animals caused soil compaction.*

*Influence 2: The perceptions during nation building were that the environment was a canvas which to paint a nation. With Federation just occurring (1901) and the formation of Australia's first national Parks (Wilson's Promontory 1898) pride in the Australian environment was becoming prominent. This led to the interaction of protection strategies put into place for the little penguin population. This led to positive impacts as the little penguins are a native species and their population increased.*

### Question 5

| Marks | 0 | 1  | 2  | 3  | 4  | Average |
|-------|---|----|----|----|----|---------|
| %     | 5 | 14 | 34 | 33 | 14 | 2.4     |

Students needed to reference the graph, defining sustainability and explaining the importance of it within an environmental, social and economic context.

Many definitions of sustainability were acceptable.

Student responses that did not reference the graph could not be awarded full marks.

The following is an example of a high-scoring response.

*Sustainability is providing for the current population needs whilst not sacrificing for the future population needs. As the world population continues to increase as can be seen in the graph above from below 1 billion people in 1000CE, to now over 2 billion in 2000CE, in order to maintain environments for the future, we will need to limit our use of the environment as a resource. The environment is important socially as people need places where they can go to escape their everyday lives or relax. For the economy, sustainability has become important through things such as renewable energy. These sectors not only benefit the environment but they also provide jobs as well.*

### Question 6a.

| Marks | 0 | 1 | 2  | 3  | 4  | Average |
|-------|---|---|----|----|----|---------|
| %     | 3 | 5 | 21 | 19 | 52 | 3.1     |

Students needed to select two practices by numbering the boxes beside them, which were used as the context for their response.

Students needed to describe the relationship that people who participate in each specific practice might have with the coastal outdoor environment referred to in the stem of the question. Students generally handled this question well.

The following is an example of a high-scoring response.

*2 conservation*

*1 recreation*

*Practice 1 Recreational users may perceive the coastal environment as a place that should be used for fun and enjoyment. Their interactions can include surfing at a variety of levels. The impacts of these recreational users could be negative as increased participation results in increased pressures on the environment. Dune or sand erosion could occur.*

*Practice 2 Conservational users may perceive the environment as a place that needs to be sustained and protected. An interaction can be the construction of boardwalks to make sure humans have little impact on vegetation that may be trampled on. This has positive impacts as the native flora and fauna won't be disrupted by humans visiting the coastal environment.*

**Question 6b.**

| Marks | 0  | 1  | 2  | Average |
|-------|----|----|----|---------|
| %     | 12 | 37 | 50 | 1.4     |

Students needed to explain how the two relationships described in part a. differed.

The following is an example of a high-scoring response.

*2 conservation*

*1 recreation*

*Conservational users look at the environment as a place to be only modified if it will contribute to protecting it, e.g. building homes for little penguins. This is different from recreational users as they modify the environment to make the activities they participate in more enjoyable for themselves.*

**Question 7**

| Marks | 0 | 1 | 2 | 3 | 4 | 5  | 6  | 7 | 8 | 9 | Average |
|-------|---|---|---|---|---|----|----|---|---|---|---------|
| %     | 2 | 1 | 2 | 8 | 9 | 17 | 49 | 7 | 2 | 2 | 5.4     |

Students needed to select three images by numbering the boxes beside them, which were used as the context for their response.

They then needed to analyse how the media might use the selected image to portray the environment and the effect this could have on societal relationships with the environment.

Many students did not provide an analysis of how each selected image could be used by the media, but rather only addressed the second part of the question in relation to the effect on societal relationships.

The following is an example of a high-scoring response.

*1 [image of ocean]*

*2 [image of rock face]*

*3 [image of shark]*

*Image 1: A surf magazine such as Tracks may have this image of the beautiful ocean and blue skys to influence readers to perceive it as a fun and enjoyable place to visit. This may increase the amount of recreational surfers traveling to the beach to experience the blue skys and peaceful environment. This has a negative impact on coastal dunes as people may trample native grasses and leave rubbish.*

*Image 2: A climbing magazine or website may have this image of a man on a large challenging rock face which influences readers to see it as an adversary. This may inspire hardcore rock climbers to visit the rock face in an attempt to conquer it. This increased amount of people may lead to a positive impact on the environment as they gain an appreciation for the area and hence, look after it.*

*Image 3: TV news channels may screen this picture of a shark in response to an attack which influences readers to feel a sense of fear for coastal environments. This fear may reduce the amount of people who go swimming in the ocean as they are scared of being attacked. This has a negative impact on the environment as people are unable to gain a sense of appreciation for these creatures and coastal area's and hence are unlikely to participate in conservation efforts.*

**Question 8**

| Marks | 0 | 1 | 2 | 3  | 4  | 5  | 6  | Average |
|-------|---|---|---|----|----|----|----|---------|
| %     | 3 | 3 | 9 | 17 | 30 | 25 | 13 | 4       |

Students needed to select two groups by numbering the boxes beside them, which were used as the context for their response.

Students needed to analyse how the selected groups within society might respond to the report and the impact these responses might have on the planned hike.

Many students performed well on this question. However, some students misinterpreted the news report referenced in the question, as their answers suggested that the group were still lost, when in fact they had been located after two days. These responses could not be awarded full marks.

The following is an example of a high-scoring response.

*1 local media*

*2 emergency services*

*Group 1: The local media may begin to use the incident of the lost hikers to portray the area and hiking as dangerous, therefore discouraging participation. This will cause people in the community viewing the media to begin to adopt a similar perception of the area as dangerous and an adversary prompting outrage and fear in the community. This might place pressure on the school to cancel their week long hike and instead replace it with a safer activity.*

*Group 2: Emergency services may conduct an investigation into the area of the week-long hike and try to come up with methods to make the area safer. This could include more signage, better tracks as well as making it easier for the emergency services to access. While these may postpone the hike initially, when the hikers do set out, they will be perceived as safer due to these responses. Therefore, the school will be more likely to continue to send out groups to do the hike due to this increased safety.*

**Question 9a.**

| Marks | 0  | 1 | 2 | 3  | 4  | 5  | 6  | 7 | 8 | Average |
|-------|----|---|---|----|----|----|----|---|---|---------|
| %     | 19 | 3 | 8 | 12 | 13 | 11 | 20 | 8 | 6 | 3.9     |

Students needed to select two conflicts by numbering the boxes beside them, or specify another, which were used as the context for their response.

Students needed to compare the methods used by two opposing groups involved in each conflict.

Legislation is considered a decision-making process and therefore was not accepted as a method.

This question was not answered well. The study design specifies that students should know 'at least two case studies of conflicts of interest between people involved in uses of outdoor environments'. However, some students were not aware of two conflicts.

*1 Franklin River campaign (Tasmania)*

*2 grazing in the Alpine National Park (Victoria)*

*Conflict 1: The Wilderness Society were against the damming and utilised Direct action, in the form of blockades in December 1982, to halt construction and raise awareness of the issue through free media attention. The Tasmanian government wanted the dam built and manipulated the media by promoting the economic significance of the dam and declaring Tasmania would face a power shortage within 10 years, generate more support for their issue.*

*Conflict 2: The Victorian National Parks Association (VNPA) wanted to ban cattle grazing in the Alps and used online Petitions to gain support and hopefully inform more people about the issue. The Mountain Cattlemens Association of Victoria (MCAV) wanted to continue cattle grazing and provided research and*

*scientific information about the 'apparent' benefits of cattle grazing, including the fact it reduces the risk of fire, to try and persuade the Vic government into allowing cattle grazing.*

**Question 9b.**

| Marks | 0  | 1 | 2  | 3  | 4  | 5 | 6  | 7 | 8 | Average |
|-------|----|---|----|----|----|---|----|---|---|---------|
| %     | 15 | 8 | 16 | 12 | 16 | 8 | 10 | 7 | 9 | 3.6     |

Taking account of the outcomes of the two conflicts, students needed to evaluate the success of the methods described in part a.

Students who evaluated the success of a conflict without any apparent knowledge of the outcome could not be awarded full marks.

*1 Franklin River campaign (Tasmania)*

*2 grazing in the Alpine National Park (Victoria)*

*Conflict 1 The blockades performed by The Wilderness Society was successful as it gain more support from all the publicity and raised awareness of the importance of protecting the Franklin. The use of media by the Tasmanian government was also successful as even though they didn't get the preferred outcome they still got the support to initially begin construction as people realised the economic benefits.*

*Conflict 2 The online petitions organised by the VNPA was successful as they generated an extremely high number of signatures which influenced the governments decision to ban cattle grazing. The reports used by the Mountain cattlemen however, was unsuccessful, as scientific information was found that negated their claims that cattle reduced fire risk and instead published the negative effects cattle caused like the negative health they caused of waterways, making their method unsuccessful.*

**Question 10**

| Marks | 0 | 1  | 2  | 3  | 4  | Average |
|-------|---|----|----|----|----|---------|
| %     | 8 | 17 | 36 | 26 | 14 | 2.2     |

Students needed to select two actions by numbering the boxes beside them, which were used as the context for their response.

They then needed to describe how each selected action increased the sustainability of a particular environment, referring to practical and field trip experience in their responses.

Student responses that did not reference a specific environment, or were descriptions of the action themselves rather than descriptions of **how** they increased sustainability, could not be awarded full marks.

The following is an example of a high-scoring response.

*2 urban planning*

*1 Landcare*

*Action 1: Landcare have planted native tree's along Thompsons Creek such as River Red Gums and Bladewoods in order to lower the water table and hence decrease dry land soil salinity, therefore improving soil quality for the future.*

*Action 2: The Sands residential development in Torquay has incorporated green corridors through the estate to allow native species to interbreed, therefore maintaining genetic diversity, giving the fauna + flora a greater chance of survival into the future.*

## Question 11

| Marks | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8  | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Average |
|-------|---|---|---|---|---|---|---|---|----|---|----|----|----|----|----|----|---------|
| %     | 6 | 1 | 2 | 3 | 5 | 6 | 6 | 8 | 10 | 9 | 10 | 8  | 7  | 8  | 6  | 6  | 8.7     |

Students needed to name a specific environment that they had studied or visited, which was used as the context for their response.

Students needed to:

- describe at least two environmental indicators that could be used to evaluate the health of the selected environment
- evaluate the state of the selected environment, with reference to at least two common State of the Environment (SOE) themes
- identify at least one threat to the selected environment
- predict and describe at least two potential impacts resulting from the selected threat(s).

Acceptable indicators were those that were measurable, such as soil quality, water quality, level of air pollution, level of biodiversity, level of pest/introduced species and amount of vegetative cover.

Acceptable SOE themes were those such as atmosphere, coasts and oceans, inland waters, land, natural and cultural heritage, biodiversity and built environment.

The following is an example of a high-scoring response.

*Environment studied/visited: Karaft Wetlands*

*Quality and adequacy of water: The inland water around the karaft wetlands could be tested by sight and taste as well as pH levels. If the water is clear and tastes clean, free of any pollutants it can be considered healthy. Also, if the pH level is in the correct range, it indicates it's also free of pollutants and can also be considered healthy.*

*Range and number of species (biodiversity): If the karraft wetlands has a wide range of flora and fauna native to the area including orange bellied parrots and glasswarts, it can be considered healthy. A high number of these native species also indicates a healthy environment.*

- *Inland water: Positive → The water seemed clear to look at and was able to be consumed by humans. This indicated no major contaminations.*

*Negative → There were clear signs of oily residue on the bottom of the inland waterways and the pH level was in an insufficient range indicating contamination from herbicide and pesticide runoff from surrounding farms.*

*Overall → the inland water at the karaft wetlands can be considered a relatively unhealthy environment because although it was adequate enough to look at, there was clear contamination from oil based herbicides from farms, which are unnatural to the waterways.*

- *Biodiversity: Positive → There was an adequate range of flora and fauna around the karaff wetlands which includes a large number of glassworts and small crabs and other grasses. These all provide food and habitat for the native orange bellied parrot and indicate a healthy environment.*

*Negative → There was clear evidence of introduced species such as the English thistle and even dog droppings. This shows the impact of human settlement and these introduced species compete with native flora and fauna, which indicates an unhealthy environment.*

*Overall → the biodiversity at the karaff wetlands indicates a healthy environment as there was a wide range of native species including a high number of glassworts and crabs. This outweighed the number of introduced thistles and dogs and indicates a relatively healthy environment.*

- *Urbanisation poses a threat to the karaff wetlands as development of housing estates, orchids and golf courses encroach on the remaining fragment of wetland. This presents threats to the endangered species the orange bellied parrot and cats and dogs from the surrounding estates may escape and attack these birds, which may possibly lead to their extinction, as their breeding numbers decrease. Herbicides and oily pollutants running into the waterways in the karaff wetlands from surrounding neighbourhoods and orchids may also damage the ability of glasswarts to grow. Which is the main source of food for the parrot. If glasswarts are diminished, the parots suffer significantly as they do not have a stable food source and hence extinction may also occur for the bird this way too.*

*Overall the karaff wetlands can be considered a relatively healthy environment however there are potential threats to the area that may negatively impact the environment into the future if not properly managed now.*