

# 2017 VCE Outdoor and Environmental Studies examination report

## General comments

The 2017 Outdoor and Environmental examination was well received by students, with most providing a response to each question.

The following observations were made and may assist students in future examination preparation.

- When students are asked to reference outdoor environments, it is essential that they make specific reference to the place they have listed and not simply mention the environment at the beginning or end of their answer. For example, in Question 4, when evaluating the contemporary state of the outdoor environment health indicators, responses were often generic, for example *'We tested the water at Wilson's Prom and found it low in turbidity with a neutral pH level.'* This response could relate to a large number of environments around Victoria. A stronger response would be: We tested the water at Wilson's Prom and found that while dark in colour due to tannins in the water at Tidal River, it had low turbidity with a neutral pH. This answer provides specific reference to observations made in the environment listed. Marks are not awarded for simply rewriting the name of an outdoor environment within the response. Therefore, students need to carefully consider which environment they are going to use to ensure they can provide an adequate response to the question.
- For questions with multiple parts, some students used a region (such as South-West Victoria), instead of a specific outdoor environment in order to use different places to specifically answer separate question parts. Students must make sure they are clearly referencing a specific area.
- When discussing Indigenous communities, it is essential that students have knowledge specific to the community and its interaction in specific areas. Generic descriptions of interactions such as hunting, gathering and firestick farming are not sufficient, particularly if these interactions do not apply to the environment the student has chosen.
- When asked to perform an evaluation, students need to ensure that the evidence they provide supports their final evaluation in the question they are responding to. For example, listing a range of threats observed in an environment (erosion, introduced species, and so on) and then declaring that the environment is in good health is an inconsistent response.
- Relationships do not necessarily have to be described in terms of perceptions, interactions and impacts. This is simply a guide to help students start to form an understanding of how relationships are formed. Being able to fully explain various relationships specific to the context of the question is essential.
- Discussion around the health of an environment is often very generic. Some key aspects to take note of include: land clearing is not an impact, it is an interaction. It is the effects of land clearing, such as erosion, that are the impact. When describing the health of an environment, students need to make sure they are being specific to the environment they have listed and think about the questions they may ask in assessing the health. For example, when looking at the health of the soil or land, students should think about questions such as 'Is the soil eroded?' and 'Does the area have good biodiversity?', rather than just if the soil is moist and dark in colour.

- Students need a better understanding of erosion and salinity. Again, students need to ensure that they are applying these terms to the correct areas and situations.
- Rewriting or paraphrasing a question is unnecessary. Using key words or themes from the question is a more effective use of time and space.
- It is essential that students understand and know how to apply the command terms such as: outline, describe, explain, analyse, evaluate, identify, and others. These command terms indicate to students the length and type of response that is required. Students who did not address the command term in their response (for example, described but did not evaluate) could not be awarded full marks.
- Students need to ensure that they answer the question that has been asked and not provide a memorised response or definition that is not appropriate for the question. This was particularly evident around environmental movements, Acts and conventions.
- Students may benefit from planning their responses to the longer and extended-response questions to ensure all aspects of the question are fully addressed.

## 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 1a.

Marks	0	1	2	3	4	5	6	Average
%	2	2	5	9	31	24	26	4.4

Students needed to name an outdoor environment and an Indigenous community that is the traditional custodian of that environment. They then needed to identify and describe two specific interactions that the Indigenous community had with this outdoor environment before European colonisation.

A number of students found it difficult to provide specific interactions and descriptions, with many providing generic descriptions of firestick farming and hunting and gathering. In order to achieve full marks students needed to clearly demonstrate specific knowledge of how the interaction was practised in the specific environment.

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

*Interaction 1: The Taungnarang tribe engaged in firestick farming in the Lake Eildon/Rubicon area, utilising fire with controlled burnings to clear and manage accumulation of undergrowth, to herd native animals such as kangaroos into traps so they could be hunted easier (as kangaroos would move away from fire into desired areas) and occasionally to clear land for sacred sites where they performed ceremonies and rituals.*

*Interaction 2: The Taunguarang were a Nomadic society with a hunter-gatherer culture, not building permanent infrastructure and instead migrating with the seasons for food availability, as they did in the spring/summer with their annual migration from lower Lake Eildon/Rubicon areas to Mountains Torbeck and Bogong so they could hunt and eat Bogong moths.*

**Question 1b.**

Marks	0	1	2	3	4	5	6	Average
%	4	4	10	16	28	21	17	<b>3.9</b>

Students needed to explain the impact that the interactions described in part a. had on the outdoor environment.

Students were generally able to discuss environmental impacts; however, some lacked specificity in this. Students also need to be aware that impacts can be positive as well as negative. If part a. was answered in a generic way, responses to part b. often lacked sufficient detail to be able to receive full marks.

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

*Interaction 1: Firestick farming in Lake Eildon/Rubicon allowed species of flora to germinate as they required extreme heat to do so (such as the river red gum), and generally did maintain undergrowth and limited uncontrollable fires for as long as this practice was maintained. however the Taunguarang did burn and scar the land which is still visible around Rubicon forest today.*

*Interaction 2: The Taunguarang limited their impact on the Lake Eildon/Rubicon area as their "homes" were rotated and any soil erosion/trampling of flora were for a short period before they migrated again, and similarly flora and fauna species were never over hunted/over harvested for this reason, as evident from the high numbers of bogong moths in current times.*

**Question 1c.**

Marks	0	1	2	3	4	5	6	Average
%	4	4	10	18	26	22	16	<b>3.9</b>

Students needed to explain the Indigenous community's perception of the specific outdoor environment both before and after European colonisation.

Students generally explained the Indigenous community's perceptions of the specific outdoor environment prior to European colonisation well but then struggled to explain the Indigenous community's perception after European colonisation with their explanation either being weak or they went on to describe the European perception. A number of students referred to the Indigenous community describing the land as 'terra nullius'; however, this is incorrect as it was widely thought that this was the European perception.

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

*Before European colonisation, the Taunguarang viewed the Lake Eildon/Rubicon environment as sacred, due to their beliefs on their origination through Dreamtime stories, believing that Bundjil the creator (a wedge tailed eagle) had created them from the land (slapping mud to create woman for example) and that after death they would return to the land as evident from their personification of their ancestors as aspects of the land. For these beliefs and their dependence on the land for survival, they believed that the land was there to protect them and be protected. After European colonisation the Taunguarang's perception of the Lake Eildon/Rubicon area did not change, and they still retained their Dreamtime beliefs and respect for the environment, however their limited interaction due to the presence of European colonies created a feeling of disconnect between the Taunguarang and the Lake Eildon/Rubicon area.*

**Question 2**

Marks	0	1	2	3	4	5	6	Average
%	18	6	11	15	17	16	18	3.3

Students needed to select two of the historical influences listed and, with reference to a specific outdoor environment, explain how the influences have had an impact on the environment named.

Students' responses lacked reference to specific examples. A common error was for students to reference contemporary events. As per the study design, these influences should be looked at from the historical context; however, specific time periods will vary slightly between places due to the stage of development of the environment at that point in time.

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

*The increasing population of the 1850's-1860's resulted in the further development of the gold mines which had attracted people to come to the Lake Eildon/Rubicon area, as well as the further clearing of land and establishment of nearby townships, such as the township of Darlinghurst, to accommodate for the increasing numbers. As a result of the land clearing and deforestation, native species of fauna suffered from habitat loss, and the increased number of people in the Lake Eildon/Rubicon area compacted and eroded the soil from their own travels and from the hard-hooved animals they introduced (eg. horses) to the environment.*

*The time of nation-building in the 1950's-1960's came after Federation in 1901, and there was a common perception that outdoor environments were a blank canvas to build a nation on and as such large-scaled schemes occurred, such as the flooding and damming of Lake Eildon and the construction of the Rubicon aqueduct. The land around the lake was not cleared before the flooding which resulted in high levels of water pollution as well as soil erosion and pollution.*

**Question 3**

Marks	0	1	2	3	Average
%	8	28	41	23	1.8

Students needed to select an environmental movement and then explain the role that the specific movement has had in changing the relationship that humans have with outdoor environments.

Some students provided a general answer around the formation of the movement, with little reference to how the movement influenced a changing relationship. In particular, students who used the Victorian National Parks Association struggled to explain how it has helped to change human relationships and wrote about the work the organisation undertakes. Students who responded well to this question generally explained the role by using a campaign or project that the movement had been involved in that was a catalyst for the change to occur.

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

*The Wilderness Society (TWS) helped change the perceptions of environments such as the franklin River, from being viewed as a resource and means for developing the economy, to being something of intrinsic value, an environment to be conserved and enjoyed. TWS encouraged interactions such as white-water rafting by bringing parliamentarians to do so, and their campaigning and actions helped save and protect the Franklin River from being damaged.*

**Question 4**

Marks	0	1	2	3	4	5	6	7	8	Average
%	5	2	6	8	16	15	20	14	13	5.1

Students were required to select two themes from a State of the Environment report and then with specific reference to both an outdoor environment and the selected themes, evaluate the contemporary state of the environment specified.

Students often provided generic responses and evaluations. At times, students provided a range of evidence that indicated an unhealthy or struggling environment but then in their evaluation declared that it was a healthy environment. Students need to have the ability to weigh up their evidence and make a logical evaluation based on the evidence they have presented. In providing their evidence, students must make sure that they provide specific examples relevant to the environment that they have listed and be able to correctly apply and explain terms such as erosion and salinity.

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

*Theme 1: Inland Waters*

*Indicated by water quality and adequacy, Tarra Bulga can be considered a healthy environment. The main river flowing through the park has a pH level of 6.5 which accommodates for flora and fauna survival. Low turbidity permits sun exposure through water to enhance plant growth and levels of biodiversity, indicate high water quality as species such as the platypus have high population numbers.*

*Theme 2: Land*

*The environment at Tarra Bulga can be considered healthy, demonstrating a healthy environment through indicators like soil quality and adequacy. The soil structure allows water to flow through and the dirt is a dark colour with a high moisture content, indicating fertility. Furthermore, the lush expanses of ferns and trees to support wildlife such as the lyrebird show the high levels of health of the land.*

**Question 5a.**

Marks	0	1	2	3	4	Average
%	10	6	17	16	51	3

For questions 5–7, students needed to refer to the scenario presented and most students followed this direction.

Students were asked to identify and describe two different methods that interest groups may use in the conflict to influence the government's decision.

Students generally responded well to this question. Students needed to provide a sufficient amount of detail to enable access to full marks.

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

*Save Our Bushland's method: hold information evening and community meetings. These can distribute information on the possible harmful impacts on the environment if the plan was undertaken, this can gather support which can influence the government.*

*Developer's method: Lobbying decision makers. The Developers could aim to target certain politicians directly in order to encourage them to agree with their proposal and support the housing proposal. They could present their information, plans and potential positive impacts.*

**Question 5b.**

Marks	0	1	2	3	4	5	6	7	8	Average
%	13	4	9	10	13	11	16	12	12	4.4

Students needed to analyse the effectiveness of each method described in part a.

Students need to ensure that they know what is required of them when they are asked to analyse. A number of students simply provided a further description of the methods.

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

*Information evenings and community meetings can be effective at raising some awareness on the issue and informing community members. However, these are only effective if a large number of people attend and people with no education on the issue may not attend these, hence do not generate an understanding or care for the issue. This strategy may not be effective at influencing the government's decision, as it is aimed at gathering local support. Unless large numbers of people attend and they all petition to the government then this strategy is not overly effective.*

*Lobbying decision makers is an effective strategy as the government or certain politicians are directly targeted and are informed on the developer's point of view and the reasons why the housing proposal should be accepted and implemented. Through influencing prominent people, it is more likely that their case will be understood and the developers can fully present their views. Overall, lobbying decision makers is more effective than information evenings and community meetings.*

**Question 6a.**

Marks	0	1	2	3	Average
%	19	31	32	18	1.5

Students needed to explain the role that the Victorian Environmental Assessment Council (VEAC) might have in this conflict when the state government referred the matter to them.

It is essential that students understand that the VEAC is independent and does not make decisions, only recommendations.

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

*VEAC is a group of 5 committee members who have a range of skills, expertise and knowledge regarding managing the environment and natural processes. The VEAC will conduct an investigation and collect information regarding the 150 hectares at the request of the Victorian Government and then make a recommendation to the Victorian Government regarding the use of the land.*

**Question 6b.**

Marks	0	1	2	Average
%	25	27	49	1.3

Students needed to describe one other process that the state government could use to resolve this conflict.

A number of students seemed to be confused as to the difference between litigation (the process of taking legal action) and legislation (the process of making or enacting laws) and would use these terms interchangeably or incorrectly.

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

*The state government could also use the creation of laws to resolve the conflict. The government may impose a law that makes it illegal for development on public land that contains vulnerable ecosystems and endangered species, which would prevent the developer from clearing the land.*

### Question 6c.

Marks	0	1	2	3	4	Average
%	28	12	22	24	15	1.9

Students needed to evaluate the effectiveness of the decision-making process described in part b. Students were generally able to do this well if they had responded correctly to part b.

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

*The creation of laws provides a quick resolution to the conflict that is legally binding and ensures no development will take place on public land with endangered species and vulnerable ecosystems, helping to preserve the environment.*

*However, it creates a win/lose situation, where one side of the conflict (in this case, the developer) is unsatisfied with the result.*

*Overall, it is effective as it resolves the conflict without further processes needed to take place.*

### Question 7

Marks	0	1	2	3	4	5	6	7	8	Average
%	24	4	11	11	15	8	12	7	8	3.5

Some students did not remember that this question was a part of the scenario continued through Questions 5 and 6.

Students needed to list two specific management strategies that would be appropriate for the 150 hectares of public land.

Students came up with a range of strategies in response to this question. Some students simply listed or explained the *Flora and Fauna Guarantee Act* or other similar Acts or conventions. Unless specifically applied to the question, these were incorrect. The use of Trust for Nature was also incorrect as the scenario talked about public land and Trust for Nature is only applicable on private land.

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

*Two management strategies that could be used include managing weeds and identifying and controlling introduced and pest species.*

*Managing weeds will ensure that native vegetation in the vulnerable ecosystems will not be overtaken and destroyed, making it an effective strategy. However, it may be difficult to manage and remove all weeds, which means that some weeds may still pose a threat to the native flora and fauna, on the 150 hectares of land. Overall it is an effective strategy as it helps native flora and fauna, including the two endangered species present, to thrive without competing for habitat with weeds.*

*Identifying and controlling introduced and pest species such as foxes, hares and rabbits could be implemented with feral proof fencing and by destroying rabbit burrows. This will help to remove introduced pest species which prey on native species and improve their habitat and food sources as they won't have to compete with foxes, cats and rabbits, for example. However, feral proof fencing and destroying rabbit burrows may not completely eradicate pest and*

*introduced species therefore they will still pose a threat to native species. Overall, it is effective as it may increase numbers and the variety of flora and fauna species as there will be less pests and introduced species carrying diseases.*

**Question 8a.**

Marks	0	1	2	3	4	5	6	7	8	Average
%	6	4	12	16	22	12	13	8	7	4.2

Students needed to select an outdoor environment and explain the impact, or potential impact, that land degradation and introduced species has had on both the environment and society.

Students generally explained the impact on the environment well but did not fully explain the impact on society. Students also needed to provide specific links to their nominated environment.

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

*Land degradation involves the detrimental impacts on the soil such as erosion, soil salinity and soil contamination. Land degradation could impact Wilson's Prom if farming was practiced in this environment in woodland ecosystems near Tidal River. Farming can cause soil contamination due to over fertilising, which can negatively impact native flora and fauna species such as the long nosed potoroo found at Wilson's Prom and daisy bush and white iris. This will negatively impact society as there will be less biodiversity to sustain a healthy ecosystem.*

*Introduced species such as European Carp, Mosquito fish and Red Fin in the Murray River negatively impact on the ecosystem. European Carp increase the turbidity of the river, which impacts on native species such as Murray Cod. European carp also eats Murray Cod eggs, which reduces their abundance. This impacts on people who fish for recreation as there is less native fish and more introduced species which are pests in the ecosystem.*

**Question 8b.**

Marks	0	1	2	3	4	Average
%	19	9	18	24	29	2.4

Students needed to outline a four-point plan that would ensure the sustainability of the environment named.

Some students provided definitions of sustainability or discussed conflicts and court processes; however, a simpler answer was required. Responses in dot-point format were acceptable and students who used dot points tended to address the question clearly.

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

*> Local government can develop signage around the area to ensure the general public know to stay on the tracks and respect native flora and fauna*

*> Local government can create walking and bike paths at the Otways to ensure people don't damage native species*

*> The local council can limit access during certain seasons to prevent overuse and erosion*

*> Local governments can eradicate introduced species such as the blackberry bush to ensure the health of native flora and fauna*

**Question 9**

Marks	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Average
%	8	2	5	6	8	10	10	10	9	9	8	6	5	5	1	6.7

The majority of students attempted this question. Students needed to reference the stimulus material and analyse and evaluate the contemporary societal relationships with the environment detailed in the stimulus and other outdoor environments, with reference to portrayals of the outdoors in media, music, art, writing and advertising; social responses to risk-taking; and the commercialisation of outdoor environments and experiences.

Students were able to discuss the commercialisation and portrayals well but struggled to discuss society's response to risk-taking. A number of students referenced only the outdoor environment in the material. When discussing society's response to risk-taking, students needed to use examples such as society's actions, for example, increasing certification, increasing rules and regulations, changing participation patterns, and so on.

Students are encouraged to plan their response based on the factors presented, to ensure they address all aspects of the question.

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

*The Alpine National Park, specifically the area between Falls Creek and Mount Hotham, may be portrayed in the media, music, art, writing and advertising in a positive way. For example, an artist may paint a beautiful painting of Victoria's "pristine high country", which may influence people to perceive the outdoor environment as a cathedral to protect and preserve. Such portrayals may lead to an increased participation in sustainable actions such as revegetation in the area or disposing of rubbish appropriately to minimise pollution and help native flora and fauna to thrive. This will have a positive impact on contemporary societal relationships as people will develop a greater appreciation and understanding of the environment. This will then carry across into an appreciation of other environments, such as Wilson's Prom and encourage people to visit new areas.*

*Society may respond to risk taking by implementing mandatory safety equipment. For example, if someone were to injure themselves whilst on the walking track between Falls Creek and Mount Hotham, perhaps by falling down a steep slope, the government may make safety equipment such as helmets and first aid kits mandatory. This may influence people to perceive the outdoor environment as a place that is safe as the safety equipment will prevent injury or death while on the "five day walk" or in other environments where risk-taking is present, such as rock climbing. This may cause an increase in participation in the bushwalk or other recreational activities such as camping or rock climbing as the outdoor environment is seen as safe. This may lead to an increase in negative effects on the environment such as land degradation from the increased number of human pressures on the land, and may lead to erosion on the Alpine bushwalking track or in other environments as more people participate in outdoor risk taking activities.*

*Commercialisation refers to bringing a product to the market, and an example of this is Parks Victoria and Regional Development Victoria's "master plan" to create a walking track between Falls Creek and Mount Hotham this includes "luxury huts" along the way serviced by commercial operators. By selling an outdoor experience this may influence people to feel alienated in outdoor environments as outdoor activities may be seen as a luxury that is too expensive for people such as "self-sufficient bushwalkers." This may lead to a decrease in participation in outdoor recreational activities as they cannot afford commercial activities. This may have a positive impact on the environment as the land can rejuvenate without human interference. This may also be reflected in other outdoor environments as all commercial outdoor activities may be seen as too expensive, leading to a decrease in outdoor activities and therefore allowing the environment to flourish and native biodiversity to thrive without human interference.*