

# Environment and Climate Change Our Requirements

## Why is this important?

We acknowledge that the nature of our operations can have significant environmental impacts. Additionally, our operations and growth strategy depend on obtaining and maintaining access to environmental resources such as land, biodiversity, water and air.

Competition for environmental resources is growing, with climate change amplifying the sensitivities of our natural systems. Through our *Climate Change Position Statement* and *Water Stewardship Position Statement*, we recognise that BHP has a leadership role in responding to these global challenges.

We are committed to taking action to reduce our operational greenhouse gas (GHG) emissions, building the resilience of our business to the risks arising from the physical impacts of climate change and the transition to a lower carbon economy, and working with others to enhance the global policy and market response.

We commit to improving our management of water and supporting shared approaches to water management within the regions where we operate and to engaging across communities, government, business and civil society with the aim of catalysing actions to improve water governance, increase recognition of water's diverse values and advance sustainable solutions.

In line with Our Charter, we all have a role in demonstrating our environmental responsibility by minimising impacts through every stage of our operations and contributing to resilience of the natural environment. We also recognise that our environmental performance and management of environmental impacts on our host communities is an important part of our contribution to social value.<sup>1</sup>

## Who does this apply to?

- Anyone involved in planning or executing exploration, operational or closure activities.
- Anyone involved in making investment decisions.<sup>2</sup>

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1. For new requirements contained in this version of the *Our Requirements for Environment and Climate Change*, Assets are required to have an implementation plan in place by 1 July 2020.

2. Information contained within reflects environment and climate change management standards at BHP-operated facilities. Non-operated joint ventures have their own operating and management standards, and do not apply BHP management standards.

## Environment

### Environment Risk Management

BHP has publicly stated positions and commitments, a defined *Environment, Climate Change and Community Risk Appetite Statement* and additional requirements outlined in this document that steer how we manage risk and realise opportunities to achieve our environmental objectives. Follow the risk process in *Our Requirements for Risk Management* and in addition, meet the following requirements:

- Make sure each Asset has an Environmental Management System (EMS) that is aligned with recognised international standards (see [Appendix 1](#)).

**Determine if any actual or reasonably foreseeable activities conflict with the following conditions, which are outside BHP's appetite for risk:**

- Do not explore or extract resources within the boundaries of [World Heritage](#) listed properties.
- Do not explore or extract resources adjacent to [World Heritage](#) listed properties unless you have approval and can demonstrate that the proposed activity is compatible with the outstanding universal values for which the World Heritage property is listed.
- Do not explore or extract resources within or adjacent to the boundaries of [International Union for Conservation of Nature \(IUCN\) Protected Areas Categories I to IV](#) unless you have approval and you implement a plan that meets regulatory requirements, takes into account stakeholder expectations and contributes to the values for which the protected area is listed.
- Do not operate where there is a risk of direct impacts to ecosystems which could result in the extinction of an [IUCN Red List Threatened Species](#) in the wild.
- Do not dispose of mined waste rock or tailings into a river or marine environment.

**Before undertaking or reviewing an environmental risk assessment, establish the operating context:**

- Identify and map key features and define the area of influence (see [Appendix 1](#)) for land, biodiversity, water resources and air.
- Undertake a water resource situation analysis (see [Appendix 1](#)).

**Identify environment-related risks and opportunities:**

- Within the defined area of influence for land, biodiversity, water resources and air:
  - Set the baseline or reference conditions (see [Appendix 1](#)).
  - Identify activities with actual and reasonably foreseeable environmental impacts.
  - Record the type and physical extent of actual and reasonably foreseeable environmental impacts associated with those activities.
  - Assess BHP's contribution to catchment-scale water-related risks following the Water Management Standard.

**Assess risk:**

- Assess and record the risks of our activities with actual and reasonably foreseeable environmental impacts, taking into account:
  - current and reasonably foreseeable activities consistent with the Life of Asset (LoA) plan;
  - closure plans;
  - relevant and current climate projections; and
  - the impacts of any noise, vibration, light, erosion, amenity, acid rock drainage, salinity, radioactivity, metal leaching and waste disposal.
- Define the intended Asset-level environmental objectives by setting Target Environmental Outcomes (TEOs) for land, biodiversity, air and water resources (i.e. context-based water targets), consistent with the assessed risks and impacts (see [Appendix 1](#)).
- Identify controls giving consideration to legal and compliance risks.

**Treat risk:**

- Implement controls by applying the mitigation hierarchy (avoid, minimise and rehabilitate environmental impacts, before applying compensatory actions to residual impacts) (see [Appendix 1](#)) to achieve Target Environmental Outcomes (including context-based water targets) and manage risk within appetite.
- If you have identified a water-related risk, follow the Water Management Standard.
- If you have identified a land use or biodiversity loss impact with a severity level of 3 or greater, implement a disturbance approval process that meets regulatory requirements and takes into account stakeholder expectations and potential impacts to areas of important biodiversity and/or ecosystems (see [Appendix 1](#)) and cultural significance.
- If you have an identified air-related impact on community wellbeing with a severity level of 3 or greater, develop an Air Quality Plan which must consider in its development a stakeholder engagement strategy, dispersion modelling, targets, objectives and reporting.
- If actual or reasonably foreseeable residual impacts remain to important biodiversity and/or ecosystems (see [Appendix 1](#)):
  - Identify the preferred compensatory action (see [Appendix 1](#)).
  - Develop a compensatory action implementation plan, including activities to verify continuous application of the compensatory action principles (see [Appendix 1](#)).
  - Implement the preferred compensatory action.

**Monitor and Review:**

- Establish and implement monitoring and review practices to ensure continued management of environment-related risk within appetite through the business planning and project evaluation processes:
  - monitor and verify the effectiveness of implemented controls including those defined in the EMS and compensatory actions;
  - monitor and verify progress towards achievement of Target Environmental Outcomes (including context-based water targets);
  - assess the status of the biophysical environment;
  - review if the area of influence, biophysical environment, asset plans, regulatory requirements, stakeholder expectations or water resource situation analysis have significantly changed; and
  - take action if desired conditions are not being met, significant changes have occurred and/or Target Environmental Outcomes (including context-based water targets) are not being progressed.
- Review the EMS for completeness and currency following the bi-annual risk register review.

**Delivering on Environment Strategies and Plans**

**We deliver on our environment strategies and plans by embedding them in the processes outlined in *Our Requirements for Corporate Alignment Planning*.**

- Get approval for voluntary projects which contribute to the establishment and long-term financing of areas of national or international conservation significance.
- Consider the *Climate Change Position Statement*, the *Water Stewardship Position Statement*, Target Environmental Outcomes (including context-based water targets), Asset Water Strategy and sustainability targets when doing the opportunity assessment.
- Get approval for a LoA water withdrawal forecast (see [Appendix 1](#)) aligned to the Asset optimised base plan and include in the LoA plan and incorporate in the Asset Water Strategy in accordance with the Water Management Standard.
- Develop and get approval for catchment plans that support context-based water targets and include in the LoA plan. Make sure the catchment plans document:
  - the water resource situation analysis;
  - context-based water targets;
  - controls and programs to achieve the context-based water targets and to manage catchment-scale water-related risks;
  - processes for ongoing stakeholder engagement;

- monitoring, reporting and review processes for context-based water targets and catchment-scale water-related risks.
- Get approval for Target Environmental Outcomes (including context-based water targets) and include in the LoA plan.
- Get approval annually for a five-year water withdrawal forecast (see [Appendix 1](#)) aligned to the Asset optimised base plan and include in the Asset Five Year plan.
- Make sure resources are assigned and included in the Asset two-year budget to manage environment-related risks (including regulatory and compliance risks) and to progress Target Environmental Outcomes and context-based water targets.

## Climate Change

### Climate Change Risk Management

BHP has publicly stated positions and commitments, a defined *Environment, Climate Change and Community Risk Appetite Statement* and additional requirements outlined in this document that steer how we manage climate change risks and opportunities. Follow the risk process in *Our Requirements for Risk Management* and in addition, meet the following requirements:

- When assessing climate change risk and opportunity, take into account:
  - current and reasonably foreseeable activities consistent with the Life of Asset plan;
  - closure plans;
  - the impacts of climate change.
- Use relevant and current climate projections to identify and assess climate change risks and opportunities over the timespans of Asset or Operation activities or investment decisions.
- Consider both physical (acute, chronic or cumulative) and transitional (policy, legal, technology, market, reputation) climate change risks and opportunities.

### Delivering on Climate Change Strategies and Plans

We deliver on our climate change strategies and plans by embedding them in the processes outlined in *Our Requirements for Corporate Alignment Planning*.

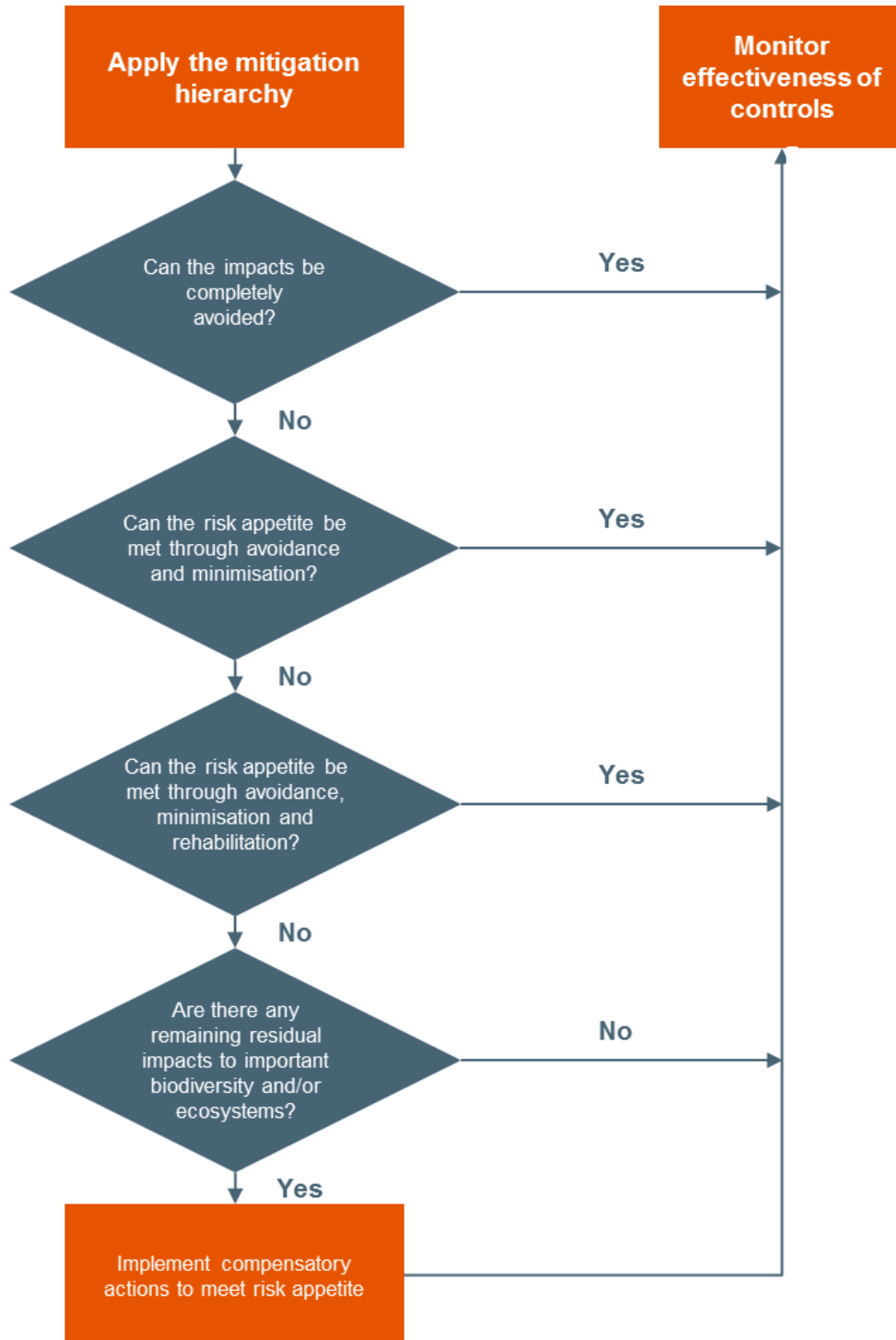
- Get approval before implementing any carbon offsets.
- Consider the *Climate Change Position Statement*, the *Water Stewardship Position Statement*, Target Environmental Outcomes (including context-based water targets) and sustainability targets when doing the opportunity assessment.
- Identify GHG emissions reduction opportunities when doing the opportunity assessment.
- Get approval for a LoA GHG emissions forecast aligned to the Asset optimised base plan and include in the LoA plan.
- Get approval for a LoA case for net zero GHG emissions and include in the LoA plan.
- Get approval for a Climate Change Asset-Level Plan to implement the controls to build resilience and manage physical risks of climate change and risks associated with the transition to a lower carbon economy and include in the Asset optimised base plan.
- Get approval annually for a five-year GHG emissions forecast aligned to the Asset optimised base plan and include in the Asset Five Year plan.
- Identify opportunities annually (for e.g. new project, incremental improvement and/or equipment selection) for GHG emissions reduction:
  - calculate the return on investment using the carbon pricing protocol (available from Finance);
  - get approval for the opportunities with a neutral or positive return on investment (unless opportunities are unsuitable) and implement by including in the Asset Five Year plan; and
  - monitor and review implemented opportunities and quantify the reductions in GHG emissions.
- Make sure resources are assigned to deliver GHG emissions reductions and are included in the Asset two-year budget.

# Appendix 1 Environmental management requirements

## Environment risk management process overview



**Mitigation hierarchy process overview**



**Detailed process requirements and definitions**

Requirement	Scope
<b>An aligned Environmental Management System</b>	<p>An Asset has an EMS that is aligned with recognised international standards if:</p> <ul style="list-style-type: none"> <li>• It is ISO14001 certified; or</li> <li>• It implements and periodically reviews an EMS framework that contains procedures and processes for the following: <ul style="list-style-type: none"> <li>– Identification of baseline or reference conditions, area of influence and the type and extent of actual and reasonably foreseeable environmental impacts associated with Asset activities, taking into account cumulative impacts and impacts arising from climate change.</li> <li>– Identification of legal and other environmental obligations.</li> <li>– Identification and approval of target environmental outcomes (including context-based water targets).</li> <li>– Defined resources, roles, responsibilities and authorities for environmental management.</li> <li>– Environmental management competence, training and awareness.</li> <li>– Stakeholder communication.</li> <li>– Documentation and reporting (see <i>Our Requirements for Health, Safety, Environment and Community Reporting</i>).</li> <li>– Document control and records management (see <i>Our Requirements for Information Governance and Controlled Documents</i>).</li> <li>– Operational controls to address environmental risks and opportunities within appetite (see the <i>Environment, Climate Change and Community Risk Appetite Statement</i>) and to achieve target environmental outcomes (including context-based water targets).</li> <li>– Emergency preparedness and response for material environmental risks.</li> <li>– Environmental monitoring and measuring.</li> <li>– Implementation and evaluation of compliance.</li> <li>– Non-conformance, corrective and preventative action.</li> <li>– Tracking internal audits.</li> <li>– Senior management review.</li> <li>– Identification of opportunities for improvement, including adoption or development of new technologies.</li> </ul> </li> </ul>
<b>Identify and map key features</b>	<ul style="list-style-type: none"> <li>• Key features are physical elements within an area of influence that are identified and mapped to understand the potential impacts of BHP operations. Key features include: <ul style="list-style-type: none"> <li>• BHP owned, leased or managed land.</li> <li>• Activities under BHP operational control.</li> <li>• Sensitive receptors including Host communities and mining camps.</li> <li>• Areas of cultural significance (taking into account knowledge management sensitivities).</li> <li>• Contaminated sites.</li> <li>• Designated <a href="#">protected areas</a> and areas of high conservation value.</li> <li>• Water resources and water catchments.</li> <li>• Listed species and ecosystems (e.g. <a href="#">IUCN Red List</a>).</li> <li>• Areas of potential acid forming materials as described in the Acid and Metalliferous Drainage Management Standard, or other mineralisation with potential HSEC impacts (e.g. asbestos).</li> <li>• Areas of materials required to support rehabilitation.</li> <li>• Other activities (e.g. other resource extraction, agriculture) with potential indirect or cumulative impacts.</li> <li>• Areas of scenic or visual aesthetics (e.g. tourist attractions).</li> </ul> </li> </ul>



Requirement	Scope
<p><b>Area of influence</b></p>	<p>The boundary that takes into account BHP's business activities, and their potential direct, indirect and/or cumulative impacts on the environment. The area of influence may vary depending on the type and severity of environmental impact being considered (e.g. air shed, water catchment, bio-region). It includes:</p> <ul style="list-style-type: none"> <li>• Actual and reasonably foreseeable activities under BHP operational control.</li> <li>• Associated activities that are essential for the development but may not be directly owned, operated or managed.</li> <li>• Actual and reasonably foreseeable activities of others that may materially contribute to the severity of our impacts.</li> <li>• Areas of important biodiversity and/or ecosystems and/or of cultural significance.</li> </ul>
<p><b>Water resource situation analysis</b></p>	<p>An analysis of the water resources and catchments that the Asset interacts with. Includes assessment of:</p> <ul style="list-style-type: none"> <li>• The sustainability of the volume and quality of the water resources taking into account interactions of all other parties and climate change forecasts.</li> <li>• BHP's direct, indirect and cumulative impacts on the sustainability of the volume and quality of the water resources and any related environmental, social or cultural values, taking into account climate change forecasts in accordance with the Water Management Standard.</li> <li>• The state of water infrastructure, water access, sanitation and hygiene of local communities.</li> <li>• The environmental health of the water catchments that feed the water resources taking into account the extent of vegetation, run off, and any conservation of the area.</li> <li>• External water governance arrangements and their effectiveness.</li> </ul> <p>Make sure the water resource situation analysis is:</p> <ul style="list-style-type: none"> <li>• scoped in collaboration with key stakeholders;</li> <li>• undertaken by a third party; and</li> <li>• made publically available.</li> </ul> <p>The water resource situation analysis informs the context-based water targets.</p>
<p><b>Baseline or reference conditions</b></p>	<p>When there are catastrophic risks with material environmental impacts, undertake baseline or reference monitoring that is:</p> <ul style="list-style-type: none"> <li>• scoped in collaboration with key stakeholders;</li> <li>• undertaken by a third party; and</li> <li>• made publically available.</li> </ul>
<p><b>Target Environmental Outcomes (TEO)</b></p>	<p>Collectively, TEOs set environmental objectives for an Asset that represent an acceptable level of environmental performance. When setting TEOs, take into account:</p> <ul style="list-style-type: none"> <li>• Outcomes of the Asset-level environment risk assessment.</li> <li>• <i>Environment, Climate Change and Community Risk Appetite Statement</i>.</li> <li>• BHP public position statements.</li> <li>• Context-based water targets required under the <i>Water Stewardship Position Statement</i>.</li> <li>• Life of Asset plan.</li> <li>• Regulatory requirements.</li> <li>• Stakeholder expectations.</li> <li>• Sustainability targets.</li> <li>• Contributions to enduring environmental benefits for important biodiversity and ecosystems.</li> <li>• Water resource situation analysis.</li> </ul>

Requirement		Scope
<b>Important biodiversity and/or ecosystems</b>		Determined taking into account: <ul style="list-style-type: none"> <li>• regulatory requirements;</li> <li>• natural and critical habitats as defined by <a href="#">IFC Guidance Note 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources, sections GN43 and GN55 to GN97</a>;</li> <li>• stakeholder expectations.</li> </ul>
<b>Principles for compensatory actions must be:</b>	<b>Appropriate</b>	<ul style="list-style-type: none"> <li>• Not contribute to unacceptable impacts as a result of implementation.</li> </ul>
	<b>Effective</b>	<ul style="list-style-type: none"> <li>• Deliver conservation results that would not otherwise have occurred.</li> <li>• Target, where feasible, the conservation of similar or comparable (in type, amount and quality) biodiversity or ecosystems outside the impacted area:                             <ul style="list-style-type: none"> <li>– where direct conservation is not feasible, support and/or add value to existing initiatives, aimed at understanding, developing, conserving and managing the environmental entity of concern, a similar entity or another entity of significance elsewhere in the region.</li> </ul> </li> <li>• For direct conservation actions, be sufficiently sized or interconnected to sustain conservation results.</li> </ul>
	<b>Enduring</b>	<ul style="list-style-type: none"> <li>• Be managed by competent organisations with suitable governance structures.</li> <li>• For direct conservation actions, have tenure mechanisms to provide ongoing protection of the area.</li> <li>• Be supported by sufficient resources to maintain ongoing management of the area for the purposes it was established.</li> <li>• Have a monitoring program to assess the effectiveness of the compensatory action in achieving the outcome for which it was established.</li> </ul>
<b>Water withdrawal forecasts</b>		<ul style="list-style-type: none"> <li>• Align with business strategies.</li> <li>• Include water intended for both use and diversion.</li> <li>• Include identified water sources for withdrawal.</li> <li>• Include identification of water withdrawal reduction opportunities and their status of implementation.</li> <li>• Contribute to reducing risk and delivering on BHP's public targets and context-based water targets (where withdrawal is identified as a target).</li> </ul>