

# 1 Need and Desirability Report for the repair of “Slope 1” of the Steenbras Water Treatment Plant (WTP) Access Road

The ‘need and desirability’ of the project should be evaluated against the strategic context of the development proposal along with the broader societal needs and public interest. According to the DEA Guideline on Need and Desirability (DEA, 2017<sup>1</sup>), the concept of ‘need and desirability’ relates to the “*nature, scale and location of development being proposed, as well as the wise use of land.*” The concept of ‘need and desirability’ can be explained in terms of the broader meaning of its two components, need primarily referring to time, and desirability to place. It is acknowledged that ‘need and desirability’ are interrelated, and the two components collectively should be considered in an integrated and holistic manner.

According to the DEA Guideline (DEA, 2017), the strategic context for the need and desirability of an activity can be reviewed considering what is envisioned for a specific area, specifically what has been proposed in a municipal Integrated Development Plan (IDP) and Spatial Development Framework (SDF). These planning tools provide direction as to the desired spatial form of a municipality. Similarly, municipal Environmental Management Frameworks (EMFs) also provide the desired spatial form in terms of the environmental context of an area. Furthermore, the DEA Guideline (DEA, 2017) states that the need and desirability of an activity should be evaluated against the principles of “*promoting justifiable economic and social development*” as well as the principles of “*securing ecological sustainable development and use of natural resources*” as set out in the bill of rights in the Constitution.

**Table 1** below aims to provide more detailed responses regarding the project specific responses to the questions raised in the Need and Desirability guidelines of DEA (2017) and the Western Cape Government: Department of Environmental Affairs and Development Planning (2013). The responses were compiled taking into consideration the Provincial Spatial planning framework, Municipal IDPs, SDFs strategy, Biodiversity plans and the outcome of the project screening phase during which No-Go areas were identified based on environmental and socio-economic considerations.

**Table 1: Need (Timing) of the proposed project (based on the 2017 DEA and 2013 DEA&DP guidelines): Promoting justifiable economic and social development and Desirability (placing) of the proposed project (based on the 2017 DEA Guideline and 2013 DEA&DP Guideline): Securing ecological sustainable development and use of natural resources**

| Question                                                                                                                                                    | Response                                                                                                                                                                                                                                                                                                                                                                             |
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| 1. Is the development the best practicable environmental option for this land/ site?                                                                        | Yes, the development is the best practicable environmental option for this site. It balances engineering stability, ecological sensitivity, and regulatory compliance, while ensuring continued access to a strategic water facility. The anchored gabion wall solution is environmentally preferable.                                                                               |
| 2. How will this development use and/or impact on non-renewable and renewable natural resources and the ecosystem of which they are part?                   | The anticipated use of both natural renewable and non-renewable resources is not significant given the nature of the development.                                                                                                                                                                                                                                                    |
| 3. Would the approval of this application compromise the integrity of the existing approved Municipal IDP and SDF as agreed to by the relevant authorities? | <b>Alignment with IDP Objectives:</b> The City's IDP identifies water security, infrastructure resilience, and sustainable service delivery as strategic priorities. The Steenbras WTP is a critical municipal facility and ensuring safe and reliable access directly supports these objectives. Rehabilitation of the damaged road is therefore consistent with the IDP's emphasis |

<sup>1</sup> DEA. 2017. Guideline on Need and Desirability, Integrated Environmental Management Guideline Series 9, Department of Environmental Affairs (DEA), Pretoria, South Africa.

| Question                                                                                                                                                                                                                                                                              | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                                                                                                                                                                                                                                                                                       | <p>on maintaining and upgrading essential infrastructure to safeguard public services.</p> <p><b>Alignment with SDF Principles:</b> The SDF provides spatial planning guidance to ensure development is sustainable, resilient, and compatible with environmental constraints.</p> <p>The aquatic compliance statement confirms that the biodiversity sensitivity at Slope 1 is low, and that residual impacts after mitigation are very low. The preferred anchored gabion wall option is consistent with SDF principles of minimising ecological disturbance and integrating natural vegetation into rehabilitation.</p>                                                                                                                                                                                                                                                                                                                             |
| <p>4. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area (e.g. as defined in Environmental Management Frameworks (EMFs)), and if so, can it be justified in terms of sustainability considerations?</p> | <p>Approval of this application is consistent with the environmental management priorities set out in the EMFs. It can be justified in terms of sustainability considerations because it:</p> <ul style="list-style-type: none"> <li>• Ensures continued access to a strategic municipal water facility,</li> <li>• Minimises ecological disturbance,</li> <li>• Integrates rehabilitation into engineering design, and</li> <li>• Strengthens climate resilience.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p>5. How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural/ natural environment)?</p>                                                                                                      | <p>The activity will have minimal impact on sensitive natural and cultural areas, with effects confined to the disturbed road corridor. While the broader vegetation type is Critically Endangered, the specific footprint is degraded and of lower sensitivity. With mitigation, residual impacts are very low and reversible.</p> <p>Approval can therefore be justified in terms of sustainability considerations, as the project:</p> <ul style="list-style-type: none"> <li>• Protects downstream aquatic habitats by preventing erosion and sedimentation,</li> <li>• Integrates ecological rehabilitation into engineering design,</li> <li>• Maintains critical municipal infrastructure for water security, and</li> <li>• Aligns with biodiversity planning frameworks and environmental management priorities.</li> </ul> <p>All impacts have mitigation measures that are implementable, these have been included in the BAR and EMPr.</p> |
| <p>6. How will the development impact on people's health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place, etc.)?</p>                                                                                                                               | <p>The development will have minimal negative impacts on people's health and wellbeing, limited to short-term construction-related noise and dust. These impacts are manageable with standard mitigation measures. In the long term, the project will enhance wellbeing by:</p> <ul style="list-style-type: none"> <li>• Securing safe access to a strategic water facility,</li> <li>• Preserving the visual character of the natural environment, and</li> <li>• Supporting water security and climate resilience</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Question                                                                                                                | Response                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| 7. What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)      | Assumptions, Limitations and Gaps in Knowledge for the proposed project have been elaborated on in section J of the Basic Assessment Report.                                                                                                                                                                                                                                                                                 |
| 8. How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? | No cultural or historically significant elements identified. In response to the Notification of Intent to Develop, Heritage Western Cape responded that:<br><br><i>"HWC noted that the proposed rehabilitation and repair of the Steenbras Water Treatment Plant access road on Farm 933, Steenbras Water Treatment Plant, Helderberg does not trigger Section 38 of the National Heritage Resources Act no. 25 (1999)".</i> |

| Question                                                                                                                                                                                                                                                                                                                                            | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?                                                                                                                                                                                                                                       | The development will have minimal negative impacts on ecological integrity, confined to short-term, localised disturbance within an already degraded footprint. With mitigation, residual impacts are very low.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| How were the following ecological integrity considerations considered: <ul style="list-style-type: none"> <li>Threatened Ecosystems,</li> </ul>                                                                                                                                                                                                     | <p>The development acknowledges the presence of Critically Endangered Kogelberg Sandstone Fynbos and sensitive aquatic features in the broader landscape. However, because the footprint is small, degraded, and confined to an existing road corridor, impacts on threatened ecosystems are minimal with mitigation.</p> <p>Approval can therefore be justified in terms of sustainability considerations, as the project:</p> <ul style="list-style-type: none"> <li>Avoids intact high-value habitat,</li> <li>Actively rehabilitates degraded areas,</li> <li>Reduces erosion and sedimentation risks to downstream ecosystems.</li> </ul> |
| <ul style="list-style-type: none"> <li>Sensitive, vulnerable, highly dynamic, or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.</li> </ul> | <p>The aquatic compliance statement confirms that the watercourse at Slope 1 is of low aquatic importance and sensitivity, with no wetland habitat directly within the footprint. <i>"The impact of the works on Slope 1 will thus be of low significance with mitigation, given the small extent of works proposed at Slope 1 and the minor watercourse associated with Slope 1."</i> (Aquatic Report, p. 12)</p> <p>Sensitive seep wetlands are mapped approximately 60 m downstream and further east of the site. These areas are</p>                                                                                                       |

| Question                                                                                                                                                                                                                                                                                                                                                                            | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <ul style="list-style-type: none"> <li>• Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs"),</li> <li>• Conservation targets,</li> <li>• Environmental Management Framework</li> <li>• Spatial Development Framework</li> <li>• Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.).</li> </ul> | <p>recognised in the City Wetland Layer and the National Wetland Map (NWM5). The proposed works are confined to the disturbed road corridor and will not directly affect these wetlands. In fact, slope stabilisation will reduce erosion and sedimentation, thereby protecting downstream wetland integrity.</p> <p>As the site is located within a Critical Biodiversity Area 1 (CBA1), the selected anchored gabion wall design offers a smaller footprint than the Terramesh alternative. This approach minimises disturbance to the natural habitat, as far as practicable, and supports alignment with biodiversity conservation objectives.</p> <p>Conservation targets for this ecosystem emphasise avoiding further habitat loss and rehabilitating degraded areas.</p> <p>The project footprint is small, already disturbed by road infrastructure, and lies within degraded/semi-intact habitat patches. Rehabilitation with indigenous vegetation and alien plant control will contribute positively to meeting conservation targets.</p> <p>By stabilising slopes and preventing erosion, the project also protects downstream aquatic habitats, aligning with freshwater conservation objectives</p> <p>The project design (anchored gabion wall) was selected as the best practicable environmental option, as it integrates ecological rehabilitation into engineering design.</p> <p>Mitigation measures (indigenous revegetation, alien plant clearing, erosion control) ensure that EMF priorities are upheld rather than compromised.</p> <p>The City of Cape Town's SDF prioritises water security, infrastructure resilience, and sustainable land use.</p> <p>By ensuring reliable access to the WTP, the project supports the SDF's strategic objective of safeguarding critical municipal infrastructure while maintaining ecological integrity.</p> <p>While no RAMSAR wetlands are directly affected, the project contributes to wetland protection by reducing erosion and sedimentation into downstream aquatic systems.</p> |
| <ul style="list-style-type: none"> <li>• How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity?</li> </ul>                                                                                                                                                                                                        | <p>The rehabilitation of the Steenbras WTP access road will cause short-term, localised disturbance to both aquatic and terrestrial ecosystems during construction, including</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Question                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <ul style="list-style-type: none"> <li>• What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether.</li> <li>• What measures were explored to minimise and remedy (including offsetting) the impacts?</li> <li>• What measures were explored to enhance positive impacts?</li> </ul>                                                                                              | <p>vegetation clearance, soil movement, and temporary disruption of runoff.</p> <p>Because the footprint is small and already degraded, impacts on Critically Endangered Kogelberg Sandstone Fynbos and the minor watercourse are limited. With mitigation measures such as indigenous revegetation, alien plant control, erosion management, and footprint minimisation, residual impacts are very low and reversible.</p> <p>In the long term, the project will enhance ecological integrity by stabilising slopes, reducing erosion and sedimentation, protecting downstream wetlands, and supporting vegetation regrowth. Overall, it represents the best practicable environmental option, balancing infrastructure stability with biodiversity protection.</p> |
| <ul style="list-style-type: none"> <li>• How will this development pollute and/or degrade the biophysical environment?</li> <li>• What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether,</li> <li>• what measures were explored to minimise and remedy (including offsetting) the impacts?</li> <li>• What measures were explored to enhance positive impacts?</li> </ul>                             | <p>The rehabilitation of slope 1 will cause short-term, localised pollution and degradation during construction, but these impacts are avoided where possible, minimised and remedied where unavoidable. In the long term, the project will enhance ecological integrity, strengthen climate resilience, and protect biodiversity, representing the best practicable environmental option.</p>                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>• What waste will be generated by this development?</li> <li>• What measures were explored to firstly avoid waste, and where waste could not be avoided altogether; what measures were explored to minimise, reuse and/or recycle the waste?</li> <li>• What measures have been explored to safely treat and/or dispose of unavoidable waste?</li> </ul>                                                               | <p>The proposed repair of the damaged section of the Steenbras WTP Access Road will generate building rubble (cement, bricks, paper) during construction. Measures for the minimisation, safe treatment and/or disposal of waste during the construction phase are incorporated in the Environmental Management Programme (EMPr).</p> <p>During operation, it will generate recyclable waste (glass, paper, plastic). The project will not generate any waste during operation.</p>                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage?</li> <li>• What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts?</li> <li>• What measures were explored to enhance positive impacts?</li> </ul> | <p>The site does not constitute any national cultural heritage.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <p>How will this development use and/or impact on non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources?</p> <ul style="list-style-type: none"> <li>• How have the consequences of the depletion of the non-renewable natural resources been considered?</li> <li>• What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether.</li> <li>• What measures were explored to minimise and remedy (including offsetting) the impacts?</li> <li>• What measures were explored to enhance positive impacts?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>The proposed project will not require huge electricity capacity due to the nature of the project. A generator will be used when required. Therefore, the overall impacts on the non-renewable resources and climate change is minimal.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <ul style="list-style-type: none"> <li>• How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part?</li> <li>• Will the use of the resources and/or impact on the ecosystem jeopardise the integrity of the resource and/or system taking into account carrying capacity restrictions, limits of acceptable change, and thresholds?</li> <li>• What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources?</li> <li>• What measures were taken to ensure responsible and equitable use of the resources?</li> <li>• What measures were explored to enhance positive impacts?</li> <li>• Does the proposed development exacerbate the increased dependency on increased use of resources to maintain economic growth or does it reduce resource dependency (i.e. de-materialised growth)? (note: sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life)</li> <li>• Does the proposed use of natural resources constitute the best use</li> </ul> | <p>The proposed project will not require huge electricity capacity due to the nature of the project. A generator will be used when required during construction. Therefore, the overall impacts on the non-renewable resources and climate change are minimal.</p> <p>The development will cause short-term, localised disturbance to renewable natural resources and ecosystems during construction, including vegetation clearance, soil movement, and temporary impacts on runoff. However, the footprint is small and already degraded, meaning impacts are limited and can be mitigated.</p> <p>Negative impacts were avoided by confining works to the existing the required development footprint and selecting the anchored gabion wall option, which requires fewer materials and less excavation. Where impacts could not be avoided, they will be minimised and remedied through dust suppression, erosion control, indigenous revegetation, and alien plant management.</p> <p>Positive impacts are enhanced by integrating ecological restoration into engineering design, stabilising slopes to protect downstream wetlands, and strengthening climate resilience. The project reduces long-term resource dependency by lowering maintenance needs and preventing costly emergency repairs.</p> |

| Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <p>thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e. what are the opportunity costs of using these resources of the proposed development alternative?)</p> <ul style="list-style-type: none"> <li>Do the proposed location, type and scale of development promote a reduced dependency on resources?</li> </ul>                                                                                                                                                                                                                                                                                          | <p>Due to the nature of the project, the proposed development does not exacerbate.</p> <p>The location, type, and scale of the development promote a reduced dependency on resources by confining works to disturbed areas, using environmentally compatible engineering solutions.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>How were a risk-averse and cautious approach applied in terms of ecological impacts?</li> <li>What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?</li> <li>What is the level of risk associated with the limits of current knowledge?</li> <li>Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?</li> </ul>                                                                                                                                                                                                                  | <p><b>Aquatic Report:</b> The watercourse at Slope 1 was assessed as of low aquatic importance and sensitivity, but the report notes that downstream wetlands exist and may be indirectly affected by sedimentation.</p> <p><b>Botanical Report:</b> The site lies within Critically Endangered Kogelberg Sandstone Fynbos, but the footprint is degraded. The report acknowledges uncertainty about long-term vegetation recovery rates and the potential for invasive alien plants to colonise disturbed areas.</p> <p>Assumptions:</p> <ul style="list-style-type: none"> <li>Rehabilitation measures (indigenous revegetation, soil capture) will be effective in restoring ecological integrity.</li> <li>Construction impacts will remain confined to the disturbed footprint.</li> <li>Climate variability (e.g., cut-off low rainfall events) will not exceed design resilience thresholds.</li> </ul>                                                                                                   |
| <p>How will the ecological impacts resulting from this development impact on people's environmental right in terms of the following:</p> <ul style="list-style-type: none"> <li>Negative impacts: e.g. access to resources, opportunity costs, loss of amenity (e.g. open space), air and water quality impacts, nuisance (noise, odour, etc.), health impacts, visual impacts, etc.</li> <li>What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?</li> <li>Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts?</li> </ul> | <p>The rehabilitation of the Steenbras WTP access road will cause short-term, localised ecological impacts during construction, such as dust, noise, vegetation clearance, and temporary disturbance to the minor watercourse. These impacts may affect people's environmental rights through reduced amenity, nuisance, and short-term air and water quality risks. Importantly, the road is currently closed to public access due to slope failure, so construction activities will not further restrict public use.</p> <p>Negative impacts will be avoided by confining works to the existing degraded slope and selecting the anchored gabion wall option, which requires fewer materials and less excavation. Where impacts could not be avoided, they will be mitigated.</p> <p>Positive impacts include restored access to the WTP, improved slope stability, reduced erosion and sedimentation (protecting downstream wetlands), and enhanced amenity through indigenous vegetation rehabilitation.</p> |
| <p>Describe the linkages and dependencies between human wellbeing, livelihoods and</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>Human wellbeing and livelihoods in the area are closely linked to ecosystem services such as water security, biodiversity, and amenity. While the development will cause short-term</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| Question                                                                                                                                                                                                                                                                                                                                                      | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)?                                                                                                                                               | ecological disturbance, these impacts are avoided where possible and minimised where unavoidable. In the long term, the project delivers net positive socio-economic outcomes by restoring access to critical water infrastructure, enhancing ecological integrity, and strengthening climate resilience.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives / targets / considerations of the area?                                                                                                                                                                                               | <p>The road repair will cause some short-term disturbance to plants, soil, and the small stream during construction. This includes clearing vegetation, moving soil, and creating dust and noise. These impacts are localised and reversible, and the work is limited to areas that are already disturbed.</p> <p>In the long term, the project will strengthen ecological integrity by stabilising the slope, reducing erosion and sedimentation, and protecting downstream wetlands. Planting indigenous fynbos will help restore biodiversity and improve the natural character of the site.</p> <p>Because the road is currently closed due to slope failure, the rehabilitation will also restore safe access to the Steenbras Water Treatment Plant, which is critical for Cape Town's water supply. This means the project supports both ecological and community wellbeing.</p> |
| Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological considerations? | <p>An EMPr has been compiled for the proposed repair of "Slope 1", which is aimed at achieving "environmental best practice" which ensures environmental sustainability of the proposed development.</p> <p>Recommendations and mitigation measures prescribed in the EMPr with the intention of addressing potential pre-construction, construction and operational phase impacts on the environment.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope and nature of the project in relation to its location And existing and other planned developments in the area?                                                                                                                            | <p>The project is small in scale and confined to a small footprint and the degraded road footprint, limiting cumulative negative impacts.</p> <p>Its strategic location at the Steenbras WTP access road means the socio-economic benefits (water security, safe access) outweigh the ecological costs.</p> <p>The road provides access to Steenbras viewpoint/lookout point for tourists and residents within the City of Cape Town.</p> <p>In relation to other planned developments, this rehabilitation is restorative rather than expansive, contributing positively to cumulative ecological integrity objectives.</p>                                                                                                                                                                                                                                                            |
| <p>What is the socio-economic context of the area, based on, amongst other considerations, the following considerations?</p> <ul style="list-style-type: none"> <li>• The IDP (and its sector plans' vision, objectives, strategies, indicators, and targets) and any other strategic plans, frameworks of policies applicable to the area.</li> </ul>        | The socio-economic context of Cape Town, as set out in the IDP, emphasises resilience, sustainability, and inclusive growth. The Steenbras WTP access road rehabilitation directly supports these objectives by ensuring water security, protecting biodiversity, and creating local employment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Spatial priorities and desired spatial patterns                                                                                                                                                                                                                                                                                                               | The socio-economic and spatial context of Cape Town emphasises integration, upgrading, densification, and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |



| Question                                                                                                                                                                                                                                                                                                                                                                                                                            | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| (e.g. need for integration of segregated communities, need to upgrade informal settlements, need for densification, etc.),                                                                                                                                                                                                                                                                                                          | ecological protection. The Steenbras WTP Road rehabilitation is consistent with these priorities: it secures essential water infrastructure, protects ecological integrity, and avoids unnecessary land transformation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.)                                                                                                                                                                                                                                                                                                                                     | The socio-economic and spatial context of Cape Town emphasises integration, upgrading, densification, and ecological protection. The Steenbras WTP Road rehabilitation is consistent with these priorities: it secures essential water infrastructure, protects ecological integrity, and avoids unnecessary land transformation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area?</li> <li>Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?</li> </ul> | <p>The development will have minor, short-term negative impacts such as dust, noise, reduced amenity, and temporary disturbance during construction. These are outweighed by long-term positive impacts, including securing reliable water supply through restored access to the Steenbras WTP, strengthening infrastructure resilience, and protecting downstream ecosystems.</p> <p>It also creates local employment and skills development opportunities in construction, revegetation, and alien clearing, complementing Local Economic Development (LED) initiatives and aligning with the City's socio-economic objectives of resilience, sustainability, and inclusive growth.</p>                                                                                                                                                                                                                          |
| How will this development address the specific physical, psychological, developmental, cultural, and social needs and interests of the relevant communities?                                                                                                                                                                                                                                                                        | <p>The project meets physical needs by restoring safe access to the Steenbras Water Treatment Plant and stabilising slopes to protect people and property. It supports psychological wellbeing by providing security around water supply and improving the natural character of the area. Developmental needs are addressed through local job creation and skills development in construction and ecological restoration.</p> <p>The project strengthens public health and wellbeing by securing water supply and enhancing amenity. Overall, the development balances short-term disturbance with long-term benefits that improve ecological integrity, water security, and community quality of life.</p>                                                                                                                                                                                                        |
| Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and long term? Will the impact be socially and economically sustainable in the short- and long-term?                                                                                                                                                                                                                    | <p>The development will cause some temporary disturbance (dust, noise, vegetation clearance), but these impacts are localised, reversible, and managed through mitigation. They do not unfairly burden any particular group, since the road is already closed to public access due to slope failure.</p> <p>In the long term, the project delivers equitable benefits across generations by restoring safe access to the Steenbras Water Treatment Plant, securing Cape Town's water supply. This ensures that both current and future communities benefit from reliable infrastructure, healthier ecosystems, and improved resilience to climate change.</p> <p>Overall, the development is socially and economically sustainable: it protects critical services, creates local employment and skills opportunities, and enhances ecological integrity, while keeping negative impacts minimal and temporary.</p> |
| In terms of location, describe how the placement of the proposed development will:                                                                                                                                                                                                                                                                                                                                                  | The location of the development ensures that impacts are contained within an existing disturbed corridor, avoiding new                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Response                                                                                                                                                                                                                                                                                                                                                                                               |
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| <ul style="list-style-type: none"> <li>• result in the creation of residential and employment opportunities in close proximity to or integrated with each other reduce the need for transport of people and goods, result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport)</li> <li>• compliment other uses in the area, be in line with the planning for the area for urban related development, make use of underutilised land available with the urban edge, optimise the use of existing resources and infrastructure opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement)</li> </ul> | <p>land transformation. While it does not directly contribute to densification or public transport thresholds, it complements local planning priorities by securing water supply infrastructure, creating short-term employment, and optimising existing resources. This makes the project socially, economically, and environmentally aligned with Cape Town's spatial and development objectives</p> |
| <p>Discourage "urban sprawl" and contribute to compaction/densification, contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs, encourage environmentally sustainable land development practices and processes, take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.)</p>                                                                                                                                                                                                                                                                                                                                                                                                | <p>Not applicable due to the nature of the development</p>                                                                                                                                                                                                                                                                                                                                             |
| <p>The investment in the settlement or area in question will generate the highest socio-economic returns (i.e. an area with high economic potential) impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics and sensitivities of the area, and in terms of the nature, scale and location of the development promotes or act as a catalyst to create a more integrated settlement?</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>Not applicable due to the nature of the development.</p>                                                                                                                                                                                                                                                                                                                                            |
| <p>What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <p><b>Biodiversity</b></p> <ul style="list-style-type: none"> <li>• The site lies within Critically Endangered Kogelberg Sandstone Fynbos, but the footprint is already degraded.</li> <li>• Uncertainty: How quickly and effectively indigenous vegetation will recover after rehabilitation.</li> </ul>                                                                                              |

| Question                                                                                                                                                                                                                                                                                                                                                            | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                                                                                                                                                                                                                                                                                                     | <p>Assumption: Alien plant clearing and revegetation will be sufficient to restore ecological integrity.</p> <p><b>Aquatic</b></p> <p>The small watercourse at Slope 1 was assessed as low sensitivity, but uncertainty remains about downstream wetlands and their response to sedimentation.</p> <p>Assumption: Erosion control and slope stabilisation will prevent significant downstream impacts.</p>                                                                                                                          |
| <p>What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge?</p>                                                                                                                                  | <p>The overall risk level is low to moderate, with the main uncertainties linked to vegetation recovery, alien plant management, downstream wetland sensitivity, and climate resilience of slope stabilisation measures.</p> <p>These risks are manageable through mitigation, monitoring, and adaptive management. Importantly, the project does not create inequitable burdens on vulnerable communities and instead strengthens long-term sustainability by securing critical water infrastructure and ecological integrity.</p> |
| <p>Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?</p>                                                                                                                                                                                                           | <p>Not applicable.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>How will the socio-economic impacts resulting from this development impact on people's environmental right in terms following:</p> <p>Negative impacts: e.g. health (e.g. HIVAids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?</p> | <p>The development may cause short-term negative impacts such as dust, noise, restricted access, and minor disturbance to vegetation and livelihoods. These are localised and reversible, with measures in place to avoid or minimise harm (e.g. confining works to the disturbed corridor, dust suppression, erosion control, alien clearing). Where avoidance is not possible, impacts are managed and remedied through monitoring, phased implementation, and indigenous revegetation.</p>                                       |
| <p>Positive impacts. What measures were taken to enhance positive impacts?</p>                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• The proposed repair will allow for the road to opened to the public again, the public will be able to access the viewpoint again after years.</li> <li>• Soil and slope stabilisation of the area that was damaged by floods.</li> <li>• Potential for climate-resilient design of the erosion protection structures.</li> <li>• Improved drainage of the small stream located on the damaged slope.</li> </ul>                                                                            |
| <p>Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socioeconomic impacts will result in ecological impacts (e.g. over utilisation of natural resources, etc.)?</p>                                       | <p>Human wellbeing, livelihoods, and ecosystem services in the area are closely interdependent. The development's socio-economic impacts, securing water supply, creating jobs, and enhancing resilience, translate into positive ecological outcomes by protecting biodiversity and ecosystem services.</p>                                                                                                                                                                                                                        |
| <p>What measures were taken to pursue the selection of the "best practicable</p>                                                                                                                                                                                                                                                                                    | <p>The best practicable environmental option was selected by balancing ecological protection, socio-economic sustainability, and infrastructure resilience. It avoids unnecessary impacts,</p>                                                                                                                                                                                                                                                                                                                                      |

| Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| environmental option" in terms of socio-economic considerations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | minimises costs, secures critical resources, creates local benefits, and aligns with strategic planning priorities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p>What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)? Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there is a need for other alternatives to be considered?</p>                                                                                                                                                                                                                                                                       | <p>The development ensures environmental justice by confining works to a disturbed slope, avoiding intact ecosystems, and preventing unfair burdens on vulnerable communities. Instead, it secures equitable benefits most importantly reliable water supply for all Cape Town residents, local employment opportunities, and long-term ecological restoration.</p> <p>Alternatives were assessed, and the anchored gabion wall option was chosen as the best practicable environmental option, balancing ecological protection, socio-economic sustainability, and resilience. No further alternatives are required.</p> |
| <p>What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>The development advances equitable access by securing the water supply associated with the Steenbras Water Treatment Plant, restoring ecological integrity, and generating local employment opportunities through the repair of Slope 1. These repairs will further allow the access road to the Steenbras lookout point to be reopened for public access.</p>                                                                                                                                                                                                                                                         |
| <p>What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>An EMP has been prepared to address identified health and safety concerns throughout the lifecycle of the development.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>What measures were taken to ensure the participation of all interested and affected parties, provide all people with an opportunity to develop the understanding, skills and capacity necessary for achieving equitable, and</p> <ul style="list-style-type: none"> <li>• effective participation ensure participation by vulnerable and disadvantaged persons, empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means ensure openness and transparency, and access to information in terms of the process,</li> <li>• ensure that the interests, needs and values of all interested and affected parties were taken into account, and that adequate recognition were given to all forms of knowledge,</li> </ul> | <p>The public participation process will be undertaken in accordance with the EIA Regulations. Please see section F of the BAR for the public participation process followed for this project.</p>                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Response                                                                                                                                                                                                                                                                                     |
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| <p>including traditional and ordinary knowledge</p> <ul style="list-style-type: none"> <li>• ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein was promoted</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                              |
| <p>Considering the interests, needs and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community (e.g. a mixture of low-, middle-, and high-income housing opportunities) that is consistent with the priority needs of the local area (or that is proportional to the needs of an area)?</p>                                                                                                                                                                                                                                                                          | <p>The public participation process will include engagement with local councillor and community leaders. Community members will be provided with the opportunity to raise their concerns, which will be considered and addressed through the public participation process.</p>               |
| <p>What measures have been taken to ensure that current and/or future workers will be informed of work that potentially might be harmful to human health or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?</p>                                                                                                                                                                                                                                                                                                               | <p>An EMPr has been prepared to address identified health and safety concerns during the construction phase of the development.</p>                                                                                                                                                          |
| <p>Describe how the development will impact on job creation in terms of, amongst other aspects:</p> <ul style="list-style-type: none"> <li>• the number of temporary versus permanent jobs that will be created,</li> <li>• whether the labour available in the area will be able to take up the job opportunities (i.e. do the required skills match the skills available in the area),</li> <li>• the distance from where labourers will have to travel,</li> <li>• the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits)</li> <li>• the opportunity costs in terms of job creation</li> </ul> | <p>The repair of slope 1 will result in temporary job creation. Temporary employment opportunities will arise during the construction phase, with a mix of semi-skilled and unskilled positions that can largely be filled by local labour.</p> <p>No opportunity costs are anticipated.</p> |
| <p>What measures were taken to ensure: that there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment, that actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?</p>                                                                                                                                                                                                                                                                                                                                                       | <p>Please see section C of the BAR.</p> <p>The Interested and Affected Parties database includes various government departments and stakeholders. The stakeholders will be given an opportunity to provide comments on the project.</p>                                                      |

| Question                                                                                                                                                                                                                                                                                                                                                      | Response                                                                                                                                                                                                                                                                                                                                   |
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| What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will serve the public interest, and that the environment will be protected as the people's common heritage?                                                                                           | All comments received during the Public Participation Process will be addressed in a fair manner and in accordance with the applicable legislation                                                                                                                                                                                         |
| Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left?                                                                                                                                                                                                                                       | The mitigation measures in the EMPr are realistic and will be implementable by the responsible contract team and applicant.                                                                                                                                                                                                                |
| What measures were taken to ensure that the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects will be paid for by those responsible for harming the environment?                                   | Please see EMPr for mitigation measures for the impacts that will occur during the full life cycle of the project.                                                                                                                                                                                                                         |
| Considering the need to secure ecological integrity and a healthy bio-physical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the best practical environmental option in terms of socio-economic considerations | See section H of the BAR for a detailed description of alternatives and the selection of the best practicable environmental option.                                                                                                                                                                                                        |
| Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and other planned developments in the area                                                                                                                                                  | Given the size, scale, scope, and nature of the project, cumulative socio-economic impacts are predominantly positive. Negative impacts are localised, short-term, and reversible, while long-term benefits water security, resilience, ecological restoration, and equitable access to resources extend city-wide and across generations. |