



Need and Desirability

Proposed Rehabilitation of Watercourses on Farm 15/37 and Farm RE/37, Grootplaat, Aurora

APPENDIX K

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PROPOSED REHABILITATION OF WATERCOURSES ON FARM 15/37 AND FARM RE/37, GROOTPLAAT, AURORA: NEED AND DESIRABILITY

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Report purpose

This appendix provides a description of the rationale and motivation for the proposed rehabilitation of watercourses on Farm 15/37 and Farm RE/37, Grootplaat, Piketberg. It outlines key aspects of the 'need and desirability' of the proposal, as required by the EIA Regulations.

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1 INTRODUCTION

The consideration of 'need and desirability' of a proposal is a key part of environmental impact assessment which relates to the context, broader societal needs, and the public interest. Need and desirability, although not defined under the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended (NEMA), are generally considered to relate to:

- (a) the economic and/or societal benefit likely to be conferred by a proposed development, and
- (b) the policy and spatial planning context in which the proposed activity takes place.

Put another way, the concept of need and desirability relate to whether an activity is being proposed at the right *time* and in the right *place*.

The table below is based on the Guidelines for Need and Desirability (DEA, 2014 and DEA&DP, 2013) and sets out the key considerations motivating the need and desirability of the project proposal. This section should be read with Section E of the Basic Assessment Report, which sets out in more detail the legislative, policy, and planning contexts in which the project is proposed.

Table 1. Need and desirability guidelines as applied to the project proposal

Guideline question	Response
How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?	The property occupies a mountain ridge north of Aurora in the Bergrivier Local Municipality and falls within the upper Kuilders River catchment, a tributary of the Boesmans River and ultimately the Berg River (DWS quaternary catchment G10K). In terms of the Western Cape Biodiversity Spatial Plan the valley bottom is mapped as an Aquatic Ecological Support Area (ESA1) and the surrounding slopes as Critical Biodiversity Area (CBA1), within Piketberg Sandstone Fynbos, a vegetation type endemic to the Piketberg Mountains. The freshwater assessment (Appendix G1) confirmed a connected aquatic system of headwater seep wetlands, unchanneled and channelised valley-bottom wetlands, riparian habitat, a bedrock-controlled foothill stream reach and five in-channel dams, with a Present Ecological State ranging from Category C (moderately modified) in Reach F to Category D/E (largely to seriously modified) in Wetland Reaches A, B and D. The application relates entirely to rehabilitation within these degraded watercourses (Management Unit 1): no intact natural habitat is transformed, the quantified structural footprint is approximately 300 m² within existing degraded watercourse areas, no new crossing points are created and no dam storage capacity is increased. The intended outcome is therefore a net improvement in ecological integrity, being restored wetland extent and hydrological function, arrested channel incision, reduced invasive alien plant cover and improved downstream flow persistence and water quality (refer to Section J of the Basic Assessment Report).

• How were the following ecological integrity considerations taken into account?: - Threatened Ecosystems, - 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, - Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs"), - Conservation targets, - Environmental Management Framework - Spatial Development Framework, and - Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.).	Threatened Ecosystems: the seep wetlands, valley-bottom wetlands and riparian habitats on site are classified as Endangered ecosystem types. These systems are the subject of the rehabilitation rather than the receiving environment for new development, and all remaining natural vegetation will be retained and protected. Sensitive, vulnerable, highly dynamic or stressed ecosystems: the wetlands and riparian areas were delineated by the aquatic specialist on 8 and 9 April 2026, and ecological buffers of 30 m around wetlands and 20 m around dams were recommended. These buffers define the extent within which rehabilitation may occur and the areas to be demarcated as no-go areas during implementation. Critical Biodiversity Areas and Ecological Support Areas: only low-impact, biodiversity-sensitive land uses are appropriate within the mapped CBA1 and ESA1 areas. The Western Cape Biodiversity Spatial Plan management guideline for ESA rivers and wetlands is to maintain these systems in a functional, near-natural state, which is precisely the objective of the proposed rehabilitation. Conservation targets: no transformation of intact natural habitat is proposed; the clearing of <i>Populus</i>, <i>Pinus</i>, <i>Eucalyptus</i>, <i>Quercus</i>, <i>Sesbania</i> and <i>Pteridium</i> infestations and the re-establishment of indigenous wetland and riparian species contribute directly to conservation targets for Piketberg Sandstone Fynbos and for the associated aquatic ecosystem types. Environmental Management Framework: the Berggrivier Municipality EMF identifies wetlands, rivers, riparian zones and biodiversity corridors as critical environmental assets requiring protection and restoration, and recognises invasive alien species as a major threat to ecological functioning, water security and ecosystem resilience. The proposal is strongly aligned with those outcomes and with the EMF's climate change adaptation goals. Spatial Development Framework: the Berggrivier MSDF 2024-2029 (objective 5, 'protect ecological and agricultural integrity', and Section 6.1.1 Water Hydrology) proposes the restoration, rehabilitation and preservation of the Berg River corridor and its tributaries and the conservation of historical connections between wetlands, drainage channels and rivers. The Western Cape PSDF Policy R2 similarly directs the protection and rehabilitation of river systems and groundwater recharge areas. Global and international responsibilities: the site is not a Ramsar site and is not located within the coastal zone. The rehabilitation is a nature-based intervention intended to increase the resilience of the upper Kuiders River catchment to climate change, including higher temperatures, increased evaporative demand and more intense rainfall events (Section I of the Basic Assessment Report).
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Guideline question	Response
How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity? What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	The proposal will enhance rather than disturb ecosystems. Historical cultivation and forestry, drainage and channelisation, the construction of the five in-channel dams and invasive alien plant infestation have caused wetland shrinkage, channel incision, altered hydrology and loss of indigenous vegetation. Rehabilitation comprises regrading and reshaping of incised channels, bank pull-back to recreate a wider valley-bottom wetland in Reaches D and E, gabion weirs and reno mattresses to dissipate and spread flows, controlled low-flow releases below Dam 1, sediment removal without increasing dam capacity, formalisation of existing informal crossings as raised boardwalks, and ongoing alien clearing with indigenous revegetation. Impacts were avoided by confining all works to existing degraded watercourses, existing dam infrastructure and existing crossing points, and by demarcating all intact vegetation, delineated wetlands and ecological buffers as no-go areas. Residual construction-phase disturbance is minimised through the 30 m and 20 m buffers, on-site confirmation of each structure by the restoration ecologist and aquatic ecologist before ground preparation, progressive stabilisation and revegetation as works proceed, and the appointment of an independent Environmental Control Officer. Positive impacts are enhanced through the on-site indigenous nursery, follow-up alien treatment over several seasons and adaptive refinement of interventions in response to monitoring. No offsets are proposed, as the activity is itself a restoration intervention expected to yield a net positive outcome (Section I, item 8 of the Basic Assessment Report).
How will this development pollute and/or degrade the biophysical environment? 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? What measures were explored to enhance positive impacts?	The activity does not generate effluent and requires no potable water reticulation. The pollution risks identified are localised and confined to the implementation phase: hydrocarbon spills from machinery working in or adjacent to watercourses, contamination of wetland soils and surface water through incorrect herbicide application, sediment mobilisation and soil compaction, and erosion following alien clearing before indigenous vegetation establishes. These risks are avoided and minimised through the EMPr (Appendix H), which requires demarcated working footprints and no-go areas, machinery access to saturated wetland areas only where specifically required, herbicide application only by suitably qualified personnel in accordance with registered label requirements, sediment and erosion control throughout, progressive stabilisation and revegetation, and groundwater protection measures. Compliance is monitored by the Environmental Control Officer, with all non-compliance incidents and corrective actions recorded. Over the longer term the project will improve water quality and flow persistence in the Kuilders River and downstream in the Boesmans and Berg Rivers. The water uses fall within the General Authorisation published under Government Notice 4167 of 2023, the aquatic specialist having rated the risk to the water resource as Low for all proposed activities provided the EMPr control measures are strictly applied.

Guideline question	Response
What waste will be generated by this development? 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? What measures have been explored to safely treat and/or dispose of unavoidable waste?	Limited waste will be generated, given the rehabilitation-focused nature of the activity. Waste is avoided in the first instance by limiting material consumption and unnecessary clearing, excavation and earthworks, and by using locally won rock for gabions and reno mattresses. Cleared alien vegetation and suitable organic material will be reused on site through chipping, composting, mulch production and erosion-control structures, with no invasive propagule-bearing material stockpiled adjacent to wetlands or drainage lines. Sediment removed from the dams will be disposed of outside wetlands and drainage lines. No construction waste or surplus material may be disposed of within wetland systems or drainage lines, and unavoidable waste will be removed to a licensed facility (Section J item 4 of the Basic Assessment Report and the EMPr).
How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? 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? What measures were explored to enhance positive impacts?	The National Web-based Environmental Screening Tool assigns the property a high archaeological and cultural heritage sensitivity because of recorded rock art, and a high palaeontological sensitivity. The rock art occurs in sandstone shelters on the rocky slopes, outside the delineated watercourses, wetlands and previously cultivated areas to which this application relates. The presence of these resources informed the design by confining all rehabilitation activities, access routes and material stockpiles to watercourses and previously transformed areas, and by including the rock art localities within the no-go areas identified in Section H of the Basic Assessment Report. Excavation is limited in extent and confined to existing watercourses and disturbed areas, and the site sensitivity verification accordingly concluded that specialist heritage and palaeontological assessments were not required (Section C item 6 and Section G item 7). Work will be suspended in the area of any chance find and Heritage Western Cape notified. No impact on heritage resources is anticipated.
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? How have the consequences of the depletion of the non-renewable natural resources been considered? 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? What measures were explored to enhance positive impacts?	Impacts on non-renewable natural resources will be negligible. No mineral resource will be extracted, and no permanent energy-intensive infrastructure is proposed. Rock for gabion baskets and reno mattresses will be locally won, and existing farm roads, crossings and dam infrastructure will be used and upgraded rather than replaced. Fossil fuel use is limited to plant and vehicles during implementation and is minimised by low-technology, labour-intensive methods, limited machinery use and phasing of works. No depletion of a non-renewable resource of regional or national significance arises, and no offsetting is therefore required (Section J item 5).
How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part? 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? What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources? What measures were taken to ensure responsible and equitable use of the	The renewable resources affected are water and indigenous vegetation, and the purpose of the activity is to improve the condition of both. No potable water will be used and water for dust suppression, gabion and reno mattress construction, spillway repairs and revegetation will be drawn from the existing in-channel dams or boreholes on the property and applied by hand or bowser at the point of use, with demand reduced by phasing revegetation to the winter rainfall season and mulching with chipped alien material. No dam will be deepened or enlarged beyond its existing storage capacity. Over the longer term the removal of invasive alien vegetation, which currently increases evapotranspiration and limits

Guideline question	Response
resources? What measures were explored to enhance positive impacts? - 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. dematerialised 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) - Does the proposed use of natural resources constitute the best use 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?) - Do the proposed location, type and scale of development promote a reduced dependency on resources?	groundwater recharge, and the restoration of the water-retention capacity of the degraded wetlands, are intended to increase water availability within the catchment. The activity therefore reduces rather than exacerbates resource dependency, constitutes the best use of the affected resources when considered against the No-Go option of continued degradation, and its location, type and scale are determined by the position of the existing degradation rather than by any demand for new resources. Intergenerational equity is served by restoring ecosystem function and downstream water quality for future users.
• How were a risk-averse and cautious approach applied in terms of ecological impacts? - What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)? - What is the level of risk associated with the limits of current knowledge? - 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?	A risk-averse and cautious approach was applied through the mitigation hierarchy set out in Section I item 8 of the Basic Assessment Report, being avoidance, minimisation, remediation and, only thereafter, offsetting. Limits of current knowledge: the rehabilitation plan is based on adaptive management principles, so the type, dimensions and final placement of individual structures and the sequencing of interventions will be confirmed on site by the restoration ecologist and the aquatic ecologist during implementation. The extent of the works has been estimated from typical details, with final quantities to be confirmed in the implementing agent's method statements. Groundwater levels, aquifer type, yield and quality are taken from national Department of Water and Sanitation datasets rather than a site-specific hydrogeological investigation. The botanical and terrestrial biodiversity compliance statement (Appendix G2) is to be incorporated into the final Basic Assessment Report, and the comparative impact assessment tables in Section H will be finalised with specialist inputs. Level of risk: the aquatic specialist's Risk Assessment Matrix rates the risk to the water resource as Low for all proposed activities, provided the control measures set out in the EMP are strictly applied. The residual risk associated with the remaining knowledge gaps is low because the works are confined to already degraded areas and transform no intact habitat, and the principal climate-related risk identified is the failure of newly installed structures or plantings in an extreme rainfall event before they have stabilised. Application of the approach: 30 m wetland and 20 m dam buffers, demarcated no-go areas including the rock art localities, on-site confirmation of every structure before ground preparation, permeable soft-engineered structures that continue to pass water, sediment and small fauna,

Guideline question	Response
	progressive revegetation, fixed-point photographic and drone monitoring before and after each winter rainfall season, an independent Environmental Control Officer for the construction phase, and a Maintenance Management Plan submitted for adoption by the competent authority.
- How will the ecological impacts resulting from this development impact on people's environmental right in terms of the following: - 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. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts? - Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts?	Negative impacts: the site is well buffered from surrounding communities by distance and topography, the nearest settlement being Aurora, and the rehabilitation area carries minimal foot traffic and is out of view from surrounding areas. Localised noise and dust will be generated during working hours by plant and vehicles, but given the distance to the nearest dwellings and the intervening topography these effects are not expected to be perceptible off the property. No odours are anticipated and no loss of access to resources, amenity or open space arises. Noise, dust and visual disturbance are rated as Low negative without mitigation and Very low negative with mitigation. Measures include confinement of works to demarcated footprints, use of existing access routes, dust suppression, restriction of works to normal working hours and oversight by the Environmental Control Officer. Positive impacts: the restoration of the Kuilders River headwaters is expected to improve flow persistence and water quality to the benefit of downstream water users and ultimately the Berg River and its estuary, and the activities are expected to enhance the sense of place over the longer term. These benefits are enhanced through the full implementation of the rehabilitation programme, follow-up alien clearing over several seasons and the on-site indigenous nursery.
Describe the linkages and dependencies between human wellbeing, livelihoods and 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.)?	The property is a privately owned farm; no community is dependent on it for grazing, water abstraction or access, and no relocation, loss of access or loss of livelihood arises. The relevant linkages are therefore catchment-scale ecosystem services. Degraded wetland hydrology, channel incision and dense alien infestation currently reduce water retention, increase evapotranspiration losses and impair downstream water quality in the Kuilders River, the Boesmans River and the Berg River, a water resource described in the Berggrivier MSDF as critically endangered. Restoring wetland extent and function and clearing invasive alien vegetation therefore translates directly into socio-economic benefit for downstream water users and for the Berg River Estuary. In the shorter term, the labour-intensive clearing, planting and nursery operations present an opportunity for local employment and skills transfer. No heritage site, livelihood or opportunity cost of significance is affected.
Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives / targets / considerations of the area?	The development will have a net positive impact on the ecological integrity objectives for the area. It maintains the mapped ESA1 watercourses and CBA1 slopes in, and returns them towards, a functional near-natural state as required by the Western Cape Biodiversity Spatial Plan management guideline; it arrests channel incision and restores a wider zone of seasonal saturation; it reduces invasive alien plant cover on a sustained basis; and it improves downstream flow persistence and water quality. No intact natural habitat is transformed, no dam capacity is increased and no new crossing points are created. The negative impacts identified

Guideline question	Response
	are localised, temporary and confined to the implementation phase (Section J item 1).
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?	Property and site alternatives were not investigated because the environmental degradation is site specific and can only be addressed where it occurs; no alternative location could deliver the same environmental benefit. Design alternatives were considered at the level of individual structures, and the preferred approach uses permeable, soft-engineered structures that continue to allow the passage of water, sediment and small fauna rather than hard engineering that would permanently fix channel geometry and prevent re-wetting of the adjacent wetland. Technology alternatives were assessed and low-technology, labour-intensive methods preferred, with timber and brushwood weirs rejected as vulnerable to decay and flood impacts. Operational alternatives were assessed and ongoing ecological maintenance under the Maintenance Management Plan preferred over a single construction event without structured follow-up, since alien clearing and wetland revegetation fail without repeat treatment. Under the No-Go option the wetlands would remain in their impaired state, with continued loss of wetland extent and function, continued incision and erosion and further spread of invasive alien vegetation. The preferred alternative therefore represents the best practicable environmental option in ecological terms (Section H and Section I item 8).
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?	Positive cumulative impacts arise from the contribution the project makes, at catchment scale, to the rehabilitation of the Berg River system and its tributaries, consistent with the Western Cape PSDF Policy R2, the Berggrivier MSDP Section 6.1.1 and the National Wetland Management Framework (2021) objective of facilitating wetland restoration by private landowners. Cumulatively with other clearing and restoration initiatives in the catchment, the project contributes to reduced alien plant cover, improved baseflow persistence and improved water quality downstream. Negative cumulative impacts are limited to the implementation phase and are localised, temporary and reversible. The detailed comparative and cumulative impact assessment is set out in Section H of the Basic Assessment Report and will be finalised with the specialist inputs.
What is the socio-economic context of the area, based on, amongst other considerations, the following considerations?	
The IDP (and its sector plans' vision, objectives, strategies, indicators, and targets) and any other strategic plans, frameworks of policies applicable to the area,	The Berggrivier Municipality Integrated Development Plan (2022-2027) sets the municipality's objectives of environmental sustainability, climate resilience and sustainable development, and the project contributes directly to these, in particular to Strategic Goal 3: Sustainable Service Delivery. The clearing of invasive alien vegetation will improve water availability and supports the municipality's objectives relating to natural resource conservation and climate change adaptation, as well as its Climate Change Response Strategy and Local Biodiversity Strategy and Action Plan. At provincial level the project aligns with the Environmental Sustainability intervention area of the Western Cape PSDF and with Policy R2, which directs the protection and rehabilitation of river systems and high-yielding groundwater recharge areas, and with the CapeNature Strategic Plan 2025-2030.
Spatial priorities and desired spatial patterns (e.g. need for integration of segregated communities,	The site lies outside any urban area, in a predominantly rural and natural landscape, and no urban spatial priority such as integration, informal settlement upgrading or densification is

Guideline question	Response
need to upgrade informal settlements, need for densification, etc.),	engaged. The relevant spatial priority is the protection and restoration of ecological infrastructure: the Bergrivier MSDF 2024-2029 objective 5 seeks to protect ecological and agricultural integrity, and Section 6.1.1 proposes the restoration, rehabilitation, maintenance, enhancement and preservation of the Berg River corridor and its tributaries, and that existing and historical connections between wetlands, drainage channels and rivers be conserved through restoration initiatives. The proposal is rehabilitative in nature and involves no urban expansion or incompatible land use.
Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.)	The property comprises Portion 15 of Farm 37 and the Remainder of Farm Grootplaat 37, approximately 2 146 ha in extent, occupying a mountain ridge north of Aurora in Ward 6 of the Bergrivier Local Municipality. Apart from existing gravel roads, small farm buildings and the five in-channel dams, the property remains largely characterised by natural to semi-natural ecosystems, including fynbos vegetation, wetlands, riparian areas and open agricultural land. The subject portion occupies a high plateau and valley historically under agriculture; the remainder includes existing dwellings, some previously used for hospitality, small-scale orchards and horticulture, and natural fynbos. Recorded rock art occurs in sandstone shelters on the rocky slopes. No change in land use rights is required and the project is compatible with the property's current lawful use (Section E, items 2 and 3).
Municipal Economic Development Strategy ("LED Strategy").	No separate municipal LED strategy is engaged by the proposal. The relevant local economic development direction is provided by the Bergrivier IDP (2022-2027) and MSDF 2024-2029, which link economic sustainability to the protection of the municipality's natural resource base and water security. The project supports that direction through labour-intensive implementation, the sourcing of unskilled labour locally, and training of local staff and community members in propagation, seed collection and nursery management at the on-site indigenous nursery.
- 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? - Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?	Socio-economic impacts are limited in scale and predominantly positive. The clearing, planting and nursery operations are labour intensive and present an opportunity for local employment, and the on-site nursery is to include training of local staff and community members in propagation, seed collection and nursery management. Over the longer term the restoration of the Kuilders River headwaters is expected to improve flow persistence and water quality to the benefit of downstream water users and the Berg River Estuary, supporting the municipality's water security and climate resilience objectives. Negative socio-economic effects are confined to temporary construction-phase noise, dust and traffic, which are not expected to be perceptible off the property. No specific community initiatives are proposed by the applicant for this localised rehabilitation work, but where additional unskilled labour is required it is assumed that this will be locally sourced (Section G item 8.3).
How will this development address the specific physical, psychological, developmental, cultural, and social needs and interests of the relevant communities?	The proposal is a localised environmental rehabilitation project and does not directly address housing, social facility or service delivery needs. It responds to the physical and developmental needs of the wider community indirectly, through improved catchment water availability and water quality, improved ecological resilience to climate change,

Guideline question	Response
	local employment and skills transfer through the on-site nursery, and the protection of the recorded rock art through its inclusion in the no-go areas. The proposed activities are expected to enhance the sense of place over the longer term.
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?	Yes, the costs of the project are borne by the applicant and the negative impacts are temporary, localised and confined to the implementation phase, while the benefits of restored wetland function, improved baseflow persistence and improved downstream water quality accrue to downstream water users and to future generations. The activity is socially and economically sustainable in the short and long term: it requires no municipal bulk services, no change in land use rights and no ongoing public expenditure, and long-term maintenance is secured through the Maintenance Management Plan submitted with the application. The net positive outcome relied on in the assessment is conditional on implementation of the complete rehabilitation programme.
In terms of location, describe how the placement of the proposed development will:	
- 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),	No residential component forms part of the proposal, and no change in land use rights is sought. Employment opportunities arising during implementation are located on the property, which adjoins the town of Aurora, so labour can be sourced locally over short travelling distances. The project will not materially change the need for the transport of people or goods, and will not affect access to public transport or to non-motorised transport routes. Access is via existing farm roads and internal farm tracks, and no new crossing points or access routes are proposed.
compliment other uses in the area,	Yes. The rehabilitation is compatible with the property's current lawful agricultural and conservation use and with the surrounding rural land uses, and complements them by improving wetland hydrology, water availability and erosion stability within the catchment. No conflict with any existing approval or adjacent land use was identified (Section E items 2 and 3).
be in line with the planning for the area,	Yes. The proposal accords with the Bergvriër MSDP 2024-2029 objective 5 (protect ecological and agricultural integrity) and Section 6.1.1 (Water Hydrology), the Bergvriër IDP (2022-2027) Strategic Goal 3, the Bergvriër Municipality EMF, the Western Cape PSDP Policy R2 and the National Wetland Management Framework (2021), Theme 5 on the restoration of wetlands.
for urban related development, make use of underutilised land available with the urban edge,	Not applicable. The site is located outside an urban area and the optimisation of vacant urban land is therefore not applicable (Section E item 9).
optimise the use of existing resources and infrastructure,	Yes. Existing farm roads, access routes, informal crossing points, dams, spillways and water management infrastructure will be used and upgraded or repaired where necessary rather than replaced, and biomass generated from alien clearing will be reused on site through composting, mulching and erosion control. The project will not generate a significant demand for municipal services (Section E items 10 and 11).
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),	No opportunity costs arise. The proposed rehabilitation requires no bulk infrastructure and is not dependent on any bulk infrastructure planning or expansion.
discourage "urban sprawl" and contribute to compaction/densification,	Not applicable. The proposal involves no urban expansion or settlement growth and therefore has no effect on urban sprawl, compaction or densification.

Guideline question	Response
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,	Not applicable. The proposal is a rural environmental rehabilitation project and will not contribute to the correction of historically distorted spatial patterns of settlement.
encourage environmentally sustainable land development practices and processes,	Yes. The project is a nature-based intervention using low-technology, labour-intensive methods, permeable soft-engineered structures, locally won rock, indigenous plant material propagated in an on-site nursery, on-site reuse of cleared biomass and adaptive management informed by monitoring. It gives effect to the National Wetland Management Framework (2021) objective of facilitating wetland rehabilitation by private landowners and to the EMF's nature-based climate adaptation goals.
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.),	The location is determined by the position of the degradation being addressed, namely the incised channel upstream of Dam 1, the existing dam walls and spillways and the existing informal crossing points. The special locational factor favouring the site is its headwater position in the upper Kuilders River catchment: interventions here influence flow persistence, sediment dynamics and water quality downstream in the Boesmans River and the Berg River. No alternative site could deliver the same benefit (Section H item 1.1).
the investment in the settlement or area in question will generate the highest socio-economic returns (i.e. an area with high economic potential),	The investment is directed at municipal and provincial water security rather than at commercial return. Rehabilitating a degraded headwater system within a catchment feeding the Berg River, described in the MSDP as a critically endangered water resource, yields socio-economic returns disproportionate to the size of the works, through improved baseflow persistence, improved water quality and reduced catchment water losses from invasive alien vegetation.
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	The recorded rock art on the rocky slopes lies outside the delineated watercourses and previously cultivated areas to which this application relates, and the rock art localities are included within the no-go areas. Work will be suspended in the area of any chance find and Heritage Western Cape notified. The rehabilitation area carries minimal foot traffic and is out of view from surrounding areas, and the restoration of wetland and riparian vegetation is expected to enhance the sense of place over the longer term.
in terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement?	Not applicable in settlement terms. The proposal is rural and rehabilitative and will not act as a catalyst for settlement integration. It may, however, serve as a demonstration of privately implemented watercourse rehabilitation of the kind envisaged by the National Wetland Management Framework (2021), Objective 5.2.
How were a risk-averse and cautious approach applied in terms of socio-economic impacts?	
What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?	Limits of current knowledge: the socio-economic baseline is drawn from the 2022 Census at Bergrivier local municipal level, which is coarser than the immediate receiving environment, and household income and language data derive from the 2011 Census, being the most recent published at that level. It is assumed that where additional unskilled labour is required it will be sourced locally. The issues raised by interested and affected parties and the responses of organs of state remain outstanding pending the close of the commenting period on 19 October 2026 and will be incorporated into the final Basic Assessment Report.
What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and	The level of risk associated with these gaps is low. The site is well buffered from surrounding communities by distance and topography, no community is dependent on the property for grazing, water abstraction or access, no relocation or loss of

Guideline question	Response
sustainability) associated with the limits of current knowledge?	livelihood arises, no construction camp or worker accommodation is proposed on site, and the project creates no new demand on municipal services. No dependency of vulnerable communities on the affected resources was identified.
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?	Application of the approach: all identified interested and affected parties, adjacent landowners and occupiers, ward councillors, community-based organisations, municipal officials and relevant organs of state were notified at the outset of a 30-day commenting period; the assumption of local labour sourcing is stated explicitly; and implementation is made subject to the EMP, an independent Environmental Control Officer and the Maintenance Management Plan. Any issue raised during public participation will be addressed in the final Basic Assessment Report before a decision is taken.
How will the socio-economic impacts resulting from this development impact on people's environmental right in terms of the following:	
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?	Health and safety risks are limited to the implementation phase and are addressed through the environmental awareness programme in the EMP, compliance with applicable occupational health and safety requirements, restriction of works to demarcated footprints, and oversight by an independent Environmental Control Officer. No worker accommodation or construction camp is proposed on site, and the rehabilitation area carries minimal foot traffic and is out of view from surrounding areas. No social ills, displacement or loss of access are anticipated.
Positive impacts. What measures were taken to enhance positive impacts?	Positive impacts include local employment during the labour-intensive clearing, planting and nursery operations; training of local staff and community members in propagation, seed collection and nursery management; improved water availability, flow persistence and water quality for downstream water users and ultimately the Berg River Estuary; and an enhanced sense of place. These are enhanced through local sourcing of labour, the on-site indigenous nursery and full implementation of the rehabilitation programme with follow-up maintenance.
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.)?	The project reduces rather than increases pressure on natural resources. No community depends on the property for grazing, abstraction or harvesting, no potable water is used, no dam storage capacity is increased and cleared alien biomass is reused on site. The socio-economic benefit relied on, being improved catchment water availability and quality, is itself derived from restored ecological function, so there is no incentive towards over-utilisation of the resource. The Maintenance Management Plan and the monitoring requirements in the EMP guard against gradual degradation of the rehabilitated areas over time.
What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?	The best practicable environmental option in socio-economic terms was pursued by selecting low-technology, labour-intensive methods that maximise local employment and skills transfer, by using existing access routes and disturbed areas so that no productive land or community asset is lost, by rejecting the No-Go option under which continued degradation would further reduce downstream water quality and availability, and by securing long-term benefit through ongoing maintenance under the Maintenance Management Plan rather than a single construction event (Section H and Section I item 8).

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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 a need for other alternatives to be considered?	No adverse environmental impact associated with the proposal will be distributed in a manner that unfairly discriminates against any person. The impacts are confined to the property and to the implementation phase, the site is buffered from surrounding communities by distance and topography, and no vulnerable or disadvantaged group bears a disproportionate burden. The beneficiaries are downstream water users in the Kuilders, Boesmans and Berg River systems, together with local labour engaged during implementation. The alternatives assessed in Section H allow the best practicable environmental option to be selected and no further alternatives are required.
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?	No loss of access to environmental resources, benefits or services arises, and no special measures are therefore required to restore access. Equitable access is promoted in that the project improves the quality and persistence of a shared water resource for downstream users, and in that employment and training opportunities during implementation will be sourced locally, in an area where 37.9% of residents have only some secondary schooling and 10.3% have higher education.
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?	Responsibility across the life cycle is addressed through the EMPr (Appendix H), which applies to the design, construction and operational phases; the appointment of an independent Environmental Control Officer for the duration of the construction phase; post-construction monitoring concluded within six months of the construction phase; fixed-point photographic and drone monitoring before and after each winter rainfall season; and the Maintenance Management Plan submitted with the application for adoption by the competent authority, under which the landowner undertakes ongoing ecological maintenance.
What measures were taken to:	
ensure the participation of all interested and affected parties,	The public participation process undertaken as part of the Basic Assessment is detailed in Section F of the Basic Assessment Report, with the record of the process at Appendix F. All potential interested and affected parties were notified by email or hand delivery on 17 September 2026 of a 30-day commenting period running from 17 September 2026 to 19 October 2026. The database includes immediately adjacent landowners and occupiers, ward councillors, municipal officials, community-based organisations and relevant state departments and organs of state, and adjacent landowners and occupiers were notified by hand delivery and email, supported by site notices at strategic points and a media notice in the Weslander of 17 September 2026. Opportunity to develop understanding and capacity to participate was provided by making the draft report available on the project website at https://www.infinityenv.co.za/public/grootplaat and in hard copy for public viewing at the Aurora municipal offices for the full commenting period, and by providing direct access to the Environmental Assessment Practitioner for clarification. Participation by vulnerable and disadvantaged persons was facilitated by hand delivery of notices to adjacent occupiers, notification of ward councillors for Ward 6 and of identified community-based organisations, and by offering comment channels that do not require internet access or literacy in writing, namely a WhatsApp line on 060 524 7676 in addition
provide all people with an opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation,	
ensure participation by vulnerable and disadvantaged persons,	

Guideline question	Response
	to the website comment form and the email address comments@grootplaat@infinityenv.co.za.
promote community wellbeing and empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means,	Community wellbeing and empowerment are promoted through the information shared during the public participation process, including the specialist findings on wetland function, invasive alien vegetation and catchment water security, and through the training of local staff and community members in propagation, seed collection and nursery management at the on-site indigenous nursery.
ensure openness and transparency, and access to information in terms of the process,	Openness and transparency are ensured by publishing the draft Basic Assessment Report and appendices on the project website, placing a hard copy for public viewing at the Aurora municipal offices, advertising the process in the Weslander and by site notice, and providing multiple comment channels (website form, email and WhatsApp). All comments received will be recorded and the final report, including the comments and responses report, will be made available.
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, including traditional and ordinary knowledge,	The needs, interests and values expressed by all interested and affected parties are recorded in the comments and responses register at Appendix F and recognised in the assessment. A summary of the issues raised will be completed on conclusion of the public participation process, and authority comments will be incorporated into the final Basic Assessment Report before a decision is taken. All forms of knowledge, including local and traditional knowledge of the property and catchment, are accommodated through the range of comment channels offered.
ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein was promoted.	Participation by all interested and affected parties is encouraged, and opportunities for the participation of women and youth are promoted, both during the public participation process and in the training and employment opportunities associated with the clearing, planting and nursery operations.
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)?	The proposal contains no housing or settlement component, so opportunities for the different segments of the community take the form of employment and skills development. The clearing, planting and nursery operations are labour intensive and suited to the skills available in the surrounding area, and the on-site nursery is to include training in propagation, seed collection and nursery management. This is proportional to the localised nature and scale of the rehabilitation work, and the longer-term benefit of improved catchment water availability and water quality accrues to all downstream users.
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?	The EMPr (Appendix H) includes an environmental awareness programme for all personnel on site, covering the sensitivity of the wetlands and no-go areas, the correct handling and application of herbicides, hydrocarbon spill prevention and response, and waste management. Health and safety matters will be addressed through compliance with applicable occupational health and safety legislation, which includes the right of workers to refuse work that is unsafe, and compliance will be monitored by the independent Environmental Control Officer, with all incidents and corrective actions recorded.
Describe how the development will impact on job creation in terms of, amongst other aspects:	
the number of temporary versus permanent jobs that will be created,	Job creation is modest in scale and predominantly temporary. The clearing, planting, nursery and structure-installation

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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),	activities are labour intensive and will generate temporary opportunities over the implementation period, for which environmental authorisation is sought for five years, with a smaller number of longer-term opportunities associated with follow-up alien clearing, revegetation, nursery operation and maintenance under the Maintenance Management Plan. The skills required, being manual clearing, planting, propagation and general construction support, match the labour available in the surrounding area, where 37.9% of residents have some secondary schooling and 30.4% have completed grade 12, and the on-site nursery is to include training of local staff and community members in propagation, seed collection and nursery management. Travelling distances are short: the nearest settlement, Aurora, adjoins the property to the south-west, and it is assumed that where additional unskilled labour is required it will be sourced locally.
the distance from where labourers will have to travel,	Travelling distances are short: the nearest settlement, Aurora, adjoins the property to the south-west, and it is assumed that where additional unskilled labour is required it will be sourced locally. Travelling distance is therefore unlikely to constrain job creation.
the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits),	The job opportunities and the impacts both occur on the property, so the costs and benefits of the activity are equitably distributed, with the wider benefit of improved water quality and flow persistence accruing to downstream users in the Kuilders, Boesmans and Berg River systems.
the opportunity costs in terms of job creation	No opportunity costs in terms of job creation are anticipated. The activity requires no change in land use rights, does not displace agricultural production and does not preclude any other use of the property.
What measures were taken to ensure:	
that there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment,	Intergovernmental coordination and harmonisation are pursued through the authority consultation undertaken as part of the public participation process (Section F), which includes the Bergrivier Local Municipality, the West Coast District Municipality, the Breede-Olifants Catchment Management Agency, CapeNature, Heritage Western Cape, the Western Cape Department of Environmental Affairs and Development Planning, the National Department of Agriculture and the Western Cape Department of Agriculture. The water uses are registered with the Department of Water and Sanitation through the Breede-Olifants Catchment Management Agency under the General Authorisation published in Government Notice 41 67 of 2023, and the existing dams are dealt with through a separate parallel existing lawful use verification and validation process. No actual or potential conflict of interest between organs of state has been identified to date; any comment received will be addressed in the final Basic Assessment Report, and no conflicting recommendations were identified between the freshwater and botanical specialists (Section I item 6).
that actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?	
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?	

Guideline question	Response
	guidelines for Ecological Support Areas and Critical Biodiversity Areas. The recorded rock art, as part of the national estate, is protected through its inclusion in the no-go areas and through the chance-find procedure.
Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left?	The mitigation measures are realistic and standard for watercourse rehabilitation of this type and scale, comprising demarcated buffers and no-go areas, permeable soft-engineered structures, progressive stabilisation and revegetation with indigenous species, on-site reuse of cleared biomass, sediment and erosion control, and monitoring with follow-up treatment. The long-term legacy is intended to be positive, being restored wetland extent and hydrological function, reduced invasive alien plant cover and improved downstream water quality. The managed burden is limited to ongoing ecological maintenance by the landowner under the Maintenance Management Plan, being follow-up alien treatment, inspection and repair of structures, seasonal adjustment of dam outflows, replacement planting and periodic monitoring. The net positive outcome relied on in this assessment is conditional on implementation of the complete rehabilitation programme.
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?	The applicant bears the full cost of the rehabilitation works, the mitigation measures set out in the EMP, the appointment of the independent Environmental Control Officer, the monitoring programme and the ongoing maintenance obligations under the Maintenance Management Plan. Any pollution or degradation arising from the works, including hydrocarbon spills, incorrect herbicide application or erosion resulting from inadequate stabilisation, must be remedied at the applicant's cost in terms of the EMP and the duty of care in section 28 of the National Environmental Management Act, 1998.
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 practicable environmental option in terms of socio-economic considerations	The alternatives assessed in Section H, being the No-Go option, activity, design, technology and operational alternatives, were considered against socio-economic as well as ecological criteria. The preferred alternative was selected because it delivers catchment-scale water security and downstream water quality benefits, maximises local employment and skills transfer through low-technology labour-intensive methods, requires no change in land use rights and no municipal bulk services, imposes no cost on the public purse, and secures durable benefit through ongoing maintenance. The No-Go option was rejected because continued degradation would reduce downstream water availability and quality and would allow further spread of invasive alien vegetation (Section I item 8).
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?	Negative cumulative socio-economic impacts are not anticipated: the construction-phase effects of noise, dust and traffic are temporary, localised and not expected to be perceptible off the property, and no loss of access, livelihood or agricultural production arises. Positive cumulative impacts include temporary local employment and skills development, and the contribution the project makes, together with other clearing and restoration initiatives in the Berg River catchment, to improved water availability, water quality and climate resilience for downstream users. The detailed cumulative impact assessment is presented in Section H of the Basic Assessment Report and will be finalised with the specialist inputs.

