

APPENDIX K: NEED AND DESIRABILITY

The following table describes the need and desirability for the proposed development in terms of this Department's guideline on Need and Desirability (March 2013)/DEA Integrated Environmental Management Guidelines.

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| <p>1. How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?</p> | <p>Ecological integrity considerations include threatened ecosystems, Critical Biodiversity Areas (CBAs), Ecological Support Areas (ESAs), ecological drivers, sensitive or stressed ecosystems, conservation targets and environmental attributes and management proposals contained in municipal Environmental Management Frameworks (EMFs) and Spatial Development Frameworks (SDFs).</p> <p>For this project, there is no EMF that has been adopted however, a description of the planning and policies related to this proposal has been provided in Section E of the BAR.</p> <p>According to the Aquatic Impact Assessment (Appendix K2) the present ecological condition is considered to be moderately to largely modified due to the current activities being undertaken within its catchment as well as the three large instream dams and plantation within the site.</p> <p>The site only partly supports the CBA map since most of the proposed development site is not a wetland. Furthermore, the Botanical Specialist stated that the main wetland is located as the area mapped as ESA 2. The algorithm used to generate the mapping clearly interpreted the dense plantation (which is mostly the proposed development site) as wetland, and in the absence of ground truthing (verification) this led to the significant over mapping of CBA 2 (aquatic) in this area, as the plantation should really not be a CBA and is not a wetland. Furthermore, the main ESA 2 located near the sharp bend in the Municipal servitude should actually be a CBA 1.</p> <p>Therefore, based on the ground truthing undertaken by the Botanical Specialist, the proposed Raw Water Pipeline only contains a small portion of CBA 1 which is not indicated on the CapeNature database. The remainder of the proposed development site does not support any CBAs since it proximately occurs within a disturbed and degraded area or within the plantation.</p> |

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| | <p>Furthermore, after the ground-truthing undertaken by the Botanical Specialist the area mapped as ESA 2 should be classified as a wetland area.</p> <p>Since the Botanical Specialist has indicated that much of the proposed alignment of the pipeline will be located in a disturbed area, and the mitigation measures include removing alien vegetation on either side of the pipeline, the ecological integrity of the area will be impacted temporarily however, long-term would improve.</p> |
| <ul style="list-style-type: none"> • How were the following ecological integrity considerations taken into account? <ul style="list-style-type: none"> ○ Threatened Ecosystems, | <p>The Vegetation Map ("VegMap") of South Africa, Lesotho, and Swaziland (2018) accessed from CapeFarmMapper (Version 3) indicated that historically the proposed development site would have contained Swellendam Silcrete Fynbos which is classified as Endangered. Refer to Section G of the BAR.</p> <p>The Botanical Specialist has however confirmed that there is little evidence on site to support this classification, as most soils in the area are deep clays and ferricretes derived from underlying shales, whereas Silcrete Fynbos occurs on silcrete and sandstone. The original vegetation in the area is more likely to have been a mix of Sandstone Fynbos and Eastern Ruens Shale Renosterveld. Swellendam Silcrete Fynbos is gazetted as an Endangered habitat on a national basis (Government of South Africa 2022).</p> <p>The Botanical Specialist stated that most of the registered municipal servitude has been heavily disturbed, by earthmoving machinery during the initial pipeline placement, as well as the existing forestry practices on site.</p> |
| <ul style="list-style-type: none"> ○ 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, | <p>Refer to Section G of the BAR for the description of the receiving environment that specifically refers to the sensitive aquatic features of the site.</p> <p>According to the Aquatic Impact Assessment (Appendix G2), the NFEPA indicates that the catchments of the Klip River and Keurbooms River are mapped as Upstream Management Areas which are classified as sub-quaternary catchments. Human activities within these catchments need to be managed to prevent the degradation of downstream river FEPAs and Fish Support Areas.</p> |

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| | <p>The watercourse corridor is referred to the area south of Grootkloof Dam 3 which is where the proposed pipeline will cross the stream and associated wetland. This corridor has been mapped as a NFEPA wetland and classified as a seep wetland in terms of the National Wetland Map (version 5). The Aquatic Specialist has provided mitigation measures that have been included in the EMPr (Appendix H) and the MMP (Appendix K2).</p> |
| <ul style="list-style-type: none"> o Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs"), o Conservation targets, o Ecological drivers of the ecosystem, | <p>The site only partly supports the CBA map since most of the proposed development site is not a wetland. Furthermore, the Botanical Specialist stated that the main wetland is located as the area mapped as ESA 2. The algorithm used to generate the mapping clearly interpreted the dense plantation (which is mostly the proposed development site) as wetland, and in the absence of groundtruthing (verification) this led to the significant over mapping of CBA 2 (aquatic) in this area, as the plantation should really not be a CBA and is not a wetland. Furthermore, the main ESA 2 located near the sharp bend in the Municipal servitude should be rated as CBA 1.</p> <p>Therefore, based on the ground truthing undertaken by the Botanical Specialist, the proposed Raw Water Pipeline only contains a small portion of CBA 1 which is not indicated on the CapeNature database. The remainder of the proposed development site does not support any CBAs since it proximately occurs within a disturbed and degraded area or within the plantation. Furthermore, after the ground-truthing undertaken by the Botanical Specialist the area mapped as ESA 2 should be classified as a wetland area.</p> <p>The Botanical Specialist has confirmed that the majority of the alignment of the pipeline (84%) will be located within a Low sensitivity area since the municipal servitude has been totally transformed and disturbed. Furthermore, only a small portion of the pipeline (16%) will be located within an area rated as Medium – High Sensitivity. From a botanical perspective the development has been recommended for approval, provided that the Applicant implemented the recommended mitigation measures.</p> <p>Refer to Section E, Question 6 in the BAR.</p> |

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| <ul style="list-style-type: none"> ○ Environmental Management Framework | <p>No EMF has been adopted for the Swellendam area.</p> <p>Refer to Section E, Question 4.4. of the BAR.</p> |
| <ul style="list-style-type: none"> ○ Spatial Development Framework, and | <p>The Swellendam Spatial Development Framework (SDF) provides guidelines for future developments and forms a critical (spatial) component of the Swellendam IDP. The SDF aims to align with PSDF policy statements which promotes the sustainable use and safeguarding of cultural and scenic assets, protection of biodiversity and inland water resources, developing integrated and sustainable settlements, ensuring balanced delivery of facilities, services, and housing, and diversifying and strengthening the rural economy.</p> <p>According to the SDF, water is supplied by the Swellendam Local Municipality. The bulk and bulk link water infrastructure is inadequate for new developing nodes and the completion of various ring feeds in the network will improve water distribution management.</p> <p>The proposal intends to upgrade the existing raw water supply system to increase its capacity to meet the current and future potable water demand of the Swellendam region. Therefore, the proposal aligns with the Swellendam SDF, May 2020 as it forms part of the target projects of the municipality.</p> <p>Refer to Section E, Question 4.3 of the BAR.</p> |
| <ul style="list-style-type: none"> ○ Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.). | <p>The potential impacts associated with the proposed development are limited and not expected to extend beyond the site.</p> <p>There are no RAMSAR sites present on site.</p> <p>The proposed development is not expected to have an impact on Climate Change.</p> |
| <ul style="list-style-type: none"> ● 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 | <p>Refer to Section G and Section I of the BAR. The Botanical Impact Assessment (Appendix G1) and the Aquatic Impact Assessment (Appendix G2) have assessed the potential impacts associated with the proposal.</p> |

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| <p>minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</p> | |
| <ul style="list-style-type: none"> 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? | <p>The mitigation hierarchical approach will be followed to manage all potential impacts and risks associated with the proposed development. Pollution and degradation of the biophysical environment will be avoided as far as possible, however, where impacts cannot be avoided, measures to reduce negative impacts to an acceptable level have been provided.</p> <p>Refer to the EMPr of the BAR (Appendix H) and MMP (Appendix K2) which provides management measures to mitigate all potential impacts associated with the proposed development.</p> |
| <ul style="list-style-type: none"> 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? | <p>The proposed development will generate construction waste during the construction phase. The EMPr includes measures to minimise, reuse and recycle waste during the construction phase (Appendix H).</p> <p>During the Operational Phase, the MMP (Appendix K2) has made provision for the Applicant to undertake the necessary activities and includes the above-mentioned measures.</p> |
| <ul style="list-style-type: none"> 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? | <p>Heritage Western Cape has provided a comment on the Notice of Intent to Develop (NID) stating that "no further information is required." Refer to Appendix E1 of the BAR.</p> |
| <ul style="list-style-type: none"> 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 | <p>The existing Gravity Main Pipeline runs from the municipal storage dam, Grootkloof Dam 2, towards the existing Hermitage Raw Water Pump Station.</p> <p>Furthermore, no non-renewable nature resources will be impacted as a result of the development.</p> |

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| <p>minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</p> | |
| <ul style="list-style-type: none"> • 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 considering the 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 resources? • What measures were explored to enhance positive impacts? | <p>The proposed development is not expected to impact any renewable natural resources.</p> <p>Measures to avoid, mitigate and manage impacts will be included in the EMPr (Appendix H of the draft BAR).</p> |
| <ul style="list-style-type: none"> ○ 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) ○ 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 this the proposed development alternative?) ○ Do the proposed location, type and scale of development promote a reduced dependency on resources? | <p>The EMPr (Appendix H of the draft BAR) deals with the following principles, amongst others:</p> <ul style="list-style-type: none"> • that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied; • that waste is avoided, or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner; • that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource; • that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied. <p>Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service, or activity exists throughout its life cycle.</p> |

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| | <p>The proposal has been formulated to address the backlog of Bulk Water Infrastructure required within the SLM region. Therefore, since the potable demand cannot be accommodated by the existing Bulk Water Pipeline, the proposal aims to upgrade the infrastructure to ensure that the SLM can sufficiently supply water to the community.</p> |
| <ul style="list-style-type: none"> • How were a risk-averse and cautious approach applied in terms of ecological impacts? <ul style="list-style-type: none"> ○ 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? | <p>The proposal was assessed according to the criteria drawn up from the EIA Regulations published by the Department of Environmental Affairs and Tourism (April 1998) in terms of the Environmental Conservation Act, 1989 (Act No. 73 of 1989).</p> <p>An iterative process was undertaken to avoid, mitigate and management the potential and identified ecological impacts associated with the proposal. A description of this process is provided in Section H of the BAR.</p> <p>Refer to Section J, Question 2.4 of the BAR for the gaps, uncertainties, and assumptions of the proposal. The proposal has been assessed and all potential ecological impacts and risks have been provided in Appendix J2 of the BAR.</p> |
| <ul style="list-style-type: none"> • How will the ecological impacts be resulting from this development impact on people's environmental right in terms following: <ul style="list-style-type: none"> ○ <u>Negative impacts:</u> 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. <ul style="list-style-type: none"> ▪ What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts? ○ <u>Positive impacts:</u> e.g. improved access to resources, improved amenity, improved air, or water quality, etc. <ul style="list-style-type: none"> ▪ What measures were taken to enhance positive impacts? ○ 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 | <p>Potential negative and positive impacts that may impact on people's environmental rights during the Construction and Operational (Maintenance) Phases are described in Section I of the BAR. The Impact Assessment Tables are included as Appendix J2 of the BAR.</p> <p>It is evident from the impact assessments undertaken that the significance of the negative impacts associated with the Construction and Operational (Maintenance) Phase would at most Low negative, provided that the mitigation measures in the EMPr (Appendix H) and MMP (Appendix K2) are implemented. The identified impacts can be readily and practically reduced through the implementation of the mitigation measures.</p> <p>The proposal was designed to reduce the negative impacts and enhance the positive impacts on the ecological integrity of the area. The procedure followed has been described in Section H of the BAR. The Botanical Impact</p> |

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| <p>result in socio-economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)?</p> <ul style="list-style-type: none"> • Based on all of the above, how will this development positively or negatively impact on the ecological integrity objectives/targets/considerations of the area? • 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 “<i>best practicable environmental option</i>” in terms of ecological considerations? | <p>Assessment (Appendix G1) has included mitigation measures to reduce Alien Invasive species as well as measures to ensure no animals are trapped in trenches during the Construction and Operational (Maintenance) Phase.</p> <p>The proposal is expected to have some minor social and economic impacts which include temporary employment opportunities, dust nuisance, noise nuisance and minor traffic congestion within the local community. The significance of these positive and negative socio-economic impacts ranges from Low positive to Negligible, assuming the recommended mitigation measures are implemented.</p> <p>Measures to avoid, mitigate and manage negative impacts as well as to promote positive impacts are included in the EMPr (Appendix H) and the MMP (Appendix K2).</p> |
| <ul style="list-style-type: none"> • 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 positive and negative impacts identified and assessed in this project has been described in Section I of the BAR and the Impact Assessment Tables have been included as Appendix J2 of the BAR.</p> |
| <p style="text-align: center;">“Promoting justifiable economic and social development”.</p> <ul style="list-style-type: none"> • What is the socio-economic context of the area, based on, amongst other considerations, the following considerations? <ul style="list-style-type: none"> ○ The IDP (and its sector plans' vision, objectives, strategies, indicators, and targets) and any other strategic plans, frameworks of policies applicable to the area ○ Spatial priorities and desired spatial patterns (e.g. need for integrated or segregated communities, need to upgrade informal settlements, need for densification, etc.) ○ Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and ○ Municipal Economic Development Strategy (“LED Strategy”) | <p>Section E of the BAR provides a description of how the proposal aligns with the following:</p> <ul style="list-style-type: none"> ✓ Swellendam Integrated Development Plan (IDP) (2022 – 2027) ✓ Swellendam Spatial Development Framework (SDF) (May 2022) ✓ Spatial characters in terms of the existing land uses and rights. <p>The proposal is aligned with all the relevant legislation, policies, and guidelines for the Swellendam Municipality.</p> |

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| <ul style="list-style-type: none"> • 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? <ul style="list-style-type: none"> ◦ Will the development complement the local socio-economic initiatives [such as local economic development (LED) initiatives], or skills development programs? | <p>The socio-economic benefits associated with the proposal have been described in Section E of the BAR.</p> |
| <ul style="list-style-type: none"> • How will this development address the specific physical, psychological, developmental, cultural, and social needs and interests of the relevant communities? | <p>The proposal entails expanding the potable water capacity to meet the future and existing developments potable water demand. Therefore, the proposal addresses the needs of the Swellendam community by aiming to provide the required raw water supply.</p> |
| <ul style="list-style-type: none"> • 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>Refer to the above response.</p> |
| <ul style="list-style-type: none"> • In terms of location, describe how the placement of the proposed development will: <ul style="list-style-type: none"> ◦ 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) ◦ 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) | <ul style="list-style-type: none"> • The proposal will create temporary employment opportunities during the Construction Phase. • There is no public transport infrastructure included in the proposal. • The proposal will not impact on the "sense of place" since Heritage Western Cape has confirmed that no further information is required for this project (refer to Appendix E1). • Section E of the BAR describes how the proposal aligns with all relevant planning policies and guidelines. • The proposed development site is located outside the Urban Area and Urban Edge. • The proposal aims to "optimal use of existing infrastructure" by placing the new pipeline next to the existing raw water pipeline within the registered municipal servitude. The existing raw water pipeline will not be decommissioned but used for emergency purposes, dam maintenance, and drought situations. Therefore, the Applicant aims to upgrade the potable water supply capacity and optimises on existing infrastructure. • The project forms part of the priority projects within the Swellendam region. |

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| <ul style="list-style-type: none"> ○ 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.); ○ 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 promote or act as a catalyst to create a more integrated settlement? | <ul style="list-style-type: none"> • The development does not constitute urban sprawl and would not contribute towards densification within the immediate site and surroundings. • The proposal does encourage environmentally sustainable land development given that this EIA process was undertaken in terms of all the relevant legislation, policies, and guidelines. • The proposal encourages environmentally sustainable land development practices since the proposed pipeline will be placed adjacent to the existing pipeline within the registered municipal servitude. Therefore, no land use rights or permits will be required for this project. |
| <ul style="list-style-type: none"> • How were a risk-averse and cautious approach applied in terms of socio-economic impacts? <ul style="list-style-type: none"> ○ What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)? ○ 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? ○ 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>The proposal was assessed according to the criteria drawn up from the EIA Regulations published by the Department of Environmental Affairs and Tourism (April 1998) in terms of the Environmental Conservation Act, 1989 (Act No. 73 of 1989). Refer to Appendix J1 for the Impact Assessment Criteria and Methodology used in the BA process.</p> <p>The alternatives identified and assessed has been presented in Section H of the BAR and the impacts associated with the proposal is included as Appendix J2.</p> |

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| <ul style="list-style-type: none"> • How will the socio-economic impacts be resulting from this development impact on people's environmental right in terms following: <ul style="list-style-type: none"> ○ Negative impacts e.g. health (e.g. HIV-Aids), safety, social ills, etc.: <ul style="list-style-type: none"> ▪ What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts? ○ Positive impacts: <ul style="list-style-type: none"> ▪ What measures were taken to enhance positive impacts? | <p>The proposal is not expected to impact on people's environmental right.</p> <p>The proposal has been designed to reduce the negative impacts and enhance the positive impacts on the receiving environment. Refer to Section H for the Alternatives and Section I for the impacts assessed of the BAR.</p> <p>Measures will be provided in the EMPr (Appendix H) and MMP (Appendix K2) to avoid any impacts on people's environmental right during the Construction Phase and Operational (Maintenance) Phase.</p> <p>I&APs will be provided with opportunities to comment on the proposal during the PPP, thereby ensuring that all people's needs, rights, and concerns will be addressed throughout this BA process.</p> |
| <ul style="list-style-type: none"> • 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 socio-economic impacts will result in ecological impacts (e.g. over utilisation of natural resources, etc.)? | <p>No natural resources will be over-utilised. Since the existing raw water pipeline is unable to meet the raw water supply demand. This proposal therefore aims to upgrade the capacity by placing the new pipeline adjacent to the existing pipeline within the registered municipal servitude.</p> <p>All potential environmental impacts and risks associated with the proposal were assessed as part of this BA process. Refer to the Impact Assessment Tables included under Appendix J2 and the management outcomes under Appendix J3 of the BAR.</p> |
| <ul style="list-style-type: none"> • What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations? | <p>The proposal is not expected to have any environmental impacts that will result in fatal flaws on socio-economic aspects provided that all the mitigation and management measures to be provided in the EMPr (Appendix H) and the MMP (Appendix K2) are implemented by the Applicant.</p> |

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| <ul style="list-style-type: none"> • 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? • 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>The Applicant / Developer will be encouraged to –</p> <ul style="list-style-type: none"> • <i>inform the local authorities, local community leaders, organizations and councillors of the proposed development and the potential job opportunities for local builders and contractors.</i> <p>The Applicant / Developer in consultation with the appointed Contractor(s) should consider employing local community members during the Construction Phase / Maintenance Phase to maximise local employment opportunities. This recommendation has been included in the EMPr (Appendix H) and MMP (Appendix K2).</p> |
| <ul style="list-style-type: none"> • 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>Under South African environmental legislation, the Applicant is responsible for ensuring compliance with the EA, if granted and any other environmental approval. This BA process has identified, investigated, and assessed all potential impacts associated with the proposal. Mitigation measures have been recommended to reduce the impacts identified. The Applicant must ensure compliance with conditions of the EA (if granted), MMP (if adopted) any other environmental approvals / permits. Therefore, the Applicant has overall and total environmental responsibility to ensure that the approved EA, EMPr, and MMP is adhered to, implemented and managed.</p> |

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| <ul style="list-style-type: none"> • What measures were taken to: <ul style="list-style-type: none"> ○ 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 effective participation, ○ ensure participation by vulnerable and disadvantaged persons, ○ promote community wellbeing and 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, ○ 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, and ○ ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein were be promoted? | <p>Refer to Section F of the BAR for a detailed description of the PPP undertaken for the proposal.</p> |
| <ul style="list-style-type: none"> • 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>The proposed development site is located within Swellendam Local Municipality, Ward 1. Therefore, part of the PPP for the proposal, the municipal councillor, organisation, and ratepayers that represent the community within the area will be invited to comment on the BAR.</p> <p>The local community (potential I&APs) will be provided with the opportunity to raise any concerns relating to the proposal. All comments, issues, and concerns raised during the PPP will be addressed in the Comment & Response Report. This report will be appended to the Final BAR.</p> |
| <ul style="list-style-type: none"> • 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 | <p>Health and safety measures have been incorporated in the EMPr (Appendix H) for works during the Construction Phase. The Contractor(s), including Sub-Contractor(s) shall at all times observe the Occupational Health and Safety</p> |

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| <p>what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?</p> | <p>Act, 1993 (Act No. 85 of 1993) and ensure adequate safety precautions on the site throughout the development phase.</p> <p>An Environmental Control Officer (ECO) must be appointed to monitor compliance with the EMPr and the conditions of the EA during the Construction Phase. This has been recommended as a condition of the Environmental Authorisation however, the Applicant is ultimately responsible to ensure compliance with the EA, EMPr (Appendix H) or any other environmental approvals.</p> <p>During the Maintenance Phase the Applicant is required to appoint an ECO to monitor compliance with the MMP (Appendix K2), once approved. However, the Applicant is responsible to ensure compliance with the MMP and any other approvals.</p> |
| <ul style="list-style-type: none"> • Describe how the development will impact on job creation in terms of, amongst other aspects: <ul style="list-style-type: none"> ○ the number of temporary versus permanent jobs that will be created, ○ 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), ○ the distance from where labourers will have to travel, ○ the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits), and ○ the opportunity costs in terms of job creation (e.g. a mine might create 100 jobs, but impact on 1000 agricultural jobs, etc.). | <p>The proposal is expected to create some temporary employment opportunities during the Construction Phase. In the EMPr (Appendix H) the Applicant is recommended to consider employing local community members as part of the Construction Phase works required.</p> |
| <ul style="list-style-type: none"> • What measures were taken to ensure: <ul style="list-style-type: none"> ○ that there were inter-governmental coordination and harmonisation of policies, legislation, and actions relating to the environment, and that actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures? | <p>All relevant State Departments and Organs of State that have jurisdiction over the proposal will be consulted during the PPP undertaken as part of this BA process.</p> |

APPENDIX K: NEED AND DESIRABILITY

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| | <p>A Comments & Response Report will be provided in the Final BAR which includes all the comments received, and how the concerns have been dealt with in the BAR.</p> <p>Consultation with the State Departments and Organs of State will assist in the co-ordination of policies and legislation relating to the receiving environment. The consultation process will be undertaken during the PPP.</p> |
| <ul style="list-style-type: none"> • 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? | <p>The overarching purpose of the BA process is to determine, assess, and evaluate the consequences (positive and negative) of a proposed development on the receiving environment (i.e., living, and non-living aspects).</p> <p>An iterative approach has been followed as part of this BA process, to achieve the key purpose of Environmental Impact Assessments, which is to identify solutions, approaches, or alternatives for the proposed development to align with the Sustainable Development objectives.</p> <p>During the Public Participation Process (PPP) all potential I&APs and relevant State Departments will be provided an opportunity to on the proposal. This will allow for the proposal to be refined and revised in response to concerns raised (if necessary). All issues and concerns raised will be addressed in the Comment & Response Report which will be appended to the Final BAR.</p> |
| <ul style="list-style-type: none"> • Are the mitigation measures proposed realistic? • What long-term environmental legacy and managed burden will be left? • 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? | <p>The Aquatic and Botanical Specialist have provided the mitigation measures provided included in the project. The mitigation measures have been described in Section I of the BAR.</p> <p>The mitigation measures have been incorporated in the EMPr (Appendix H) for the Construction Phase of the development.</p> <p>To allow the Applicant to undertake maintenance and repairs, when required, a Maintenance Management Plan (Appendix K2) has been included in the proposal.</p> |

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| | The above-mentioned measures have been recommended as conditions of the Environmental Authorisation, <i>if granted</i> . The Applicant, Swellendam Local Municipality, will be responsible for the implementation and compliance the EA and any other environmental-related approvals. Since the project includes the adoption of a MMP, the Applicant will be responsible for the implementation and compliance of the MMP (Appendix K2) during the Operational Phase. |
| <ul style="list-style-type: none"> 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 considered for the proposal have been described in Section H of the BAR. |
| <ul style="list-style-type: none"> 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? | Impacts and risks were assessed in the BAR; refer to Section I and Appendix J of the BAR. |