COMMENTS AND RESPONSE REPORT – HARMONY INSTREAM DAM

Initial Comments received

OptioDate	Comment	I&AP	Response	Respondent
Abstraction/Extraction				
Thur 2024/09/12	Please register me as an interested and affected party for the projects described below	Nik Wullschleger	You are hereby registered as an Interested and Affected Party (I&AP) in the environmental assessment process.	EnviroAfrica
Objection to development.				
Sat 2024/09/07	Our property is bordered to the east by the Riet River, into which the Houdenbek and Winkelhaak Rivers flow. Any disruption to the flow of the Houdenbek River and its catchment will have a direct impact on the Riet River, negatively impacting on this important water resource for us and others downstream of the river and all the natural systems and creatures that rely on it. We rely on the permanent water holes of the Riet River as our only source of water. Until the very recent extreme weather, the Riet River had not flowed for ten years, not even in winter. Twenty years ago, before the expansion of agriculture and dams in the catchment area, it flowed all year round.	J Buckley	The proposed Harmony Instream Dam is a small in-stream storage facility with a capacity of 250,000 m³, located on an unnamed tributary of the Houdenbek River, upstream of its confluence with the Winkelhaak River and ultimately the Riet River. <u>To address your concerns:</u> 1. Limited Catchment Impact • The dam is situated on a minor tributary with a small local catchment. • It is primarily intended to capture runoff from winter rainfall events and ephemeral flows, not to intercept the mainstem flow of the Houdenbek River. • As such, its contribution to cumulative flow reduction in the Riet River is expected to be very limited. 2. Water Use Licence Safeguards The Harmony Dam forms part of a project authorised under a Water Use Licence (WUL) issued by the Department of Water and Sanitation. Key conditions include: • Abstraction limited to surplus winter runoff only. • No abstraction is permitted during low-flow (baseflow) periods.	EnviroAfrica

			• Installation of flow measurement and monitoring infrastructure to ensure compliance. • All water taken is measured and reported to DWS biannually. 3. Ecological and Downstream Protection • The dam must comply with Ecological Reserve Requirements under the National Water Act, ensuring that sufficient water remains available for downstream ecosystems. • The design and operation of the dam are not intended to reduce the availability of water in permanent pools or downstream reaches of the Riet River. 4. Environmental Impact Assessment (EIA) Process • A freshwater specialist study has been conducted and confirms that, due to the small scale and siting of the Harmony Dam, the potential impact on downstream flows is negligible. • The area has already been hydrologically assessed, and the results will form part of the final Environmental Impact Report (EIR). Your concerns have been formally recorded and will be included in the Comments and Response Report. The project team remains committed to ongoing engagement, transparency, and ensuring that the rights and needs of downstream users are protected in accordance with environmental legislation and water governance protocols.	
Wed 2024/09/18	A number of taxa are unique. Of the 8 species of the genus Baeoura, seven	Vladimir Lantsov	The high levels of endemism across multiple invertebrate genera, including *Baeoura*,	EnviroAfrica

	are endemic, of the 10 species of Austrolimnophila, 8 are endemic, of the 19 species of the genus Nephrotoma, 11 are endemic, of the 32 species of Leptotarsus, 30 are endemic, of the 4 species of Hexatoma, three are endemic and one is subendemic, four of the 8 species of the *subgenus Acutipula* in the genus Tipula are endemic.		*Austrolimnophila*, *Nephrotoma*, *Leptotarsus*, *Hexatoma*, and *Tipula* (subgenus *Acutipula*), are scientifically significant and reinforce the ecological sensitivity of the broader Koue Bokkeveld region. These findings align with the well-established understanding that the Cape Floristic Region and its surrounding ecotones represent one of the world's foremost biodiversity hotspots. The presence of highly range-restricted and potentially habitat-specialist taxa enhances the conservation value of intact habitat patches, especially riparian corridors, seasonal wetlands, and fynbos interfaces, which support the microhabitats essential to many of these species. While the direct project footprint for the Harmony Dam is primarily located in an area of transformed agricultural land, the Freshwater and Botanical Impact Assessments undertaken as part of the EIA process have assessed the potential for indirect or cumulative impacts on surrounding biodiversity, including invertebrate habitat. Key mitigation measures include: • Avoiding intact natural habitat wherever feasible during final layout planning. • Ensuring water abstraction is limited to surplus winter flows only, thereby reducing impacts on baseflows and sensitive aquatic or semi-aquatic microhabitats. • Rehabilitating disturbed riparian zones to support the recovery of native flora and associated invertebrate communities. • Implementing biodiversity monitoring protocols during and after construction to detect and address any unforeseen ecological impacts.	

			• This information will be reviewed by ecological specialists for potential incorporation into faunal sensitivity mapping. The project's Environmental Management Programme (EMPr) will be updated to reflect the area's ecological sensitivity, and your input regarding endemic invertebrate taxa has been formally recorded as part of the public participation process.	
Fri 2024/09/13	As is known, the disappearance of species is often associated with the loss of their habitats, given that a significant part of the entomofauna and, in particular, tipuloid dipterans, are topically confined to aquatic and near-water communities, their loss in the Kleine Cederberg nature reserve will inevitably lead to the disappearance of unique biota.	Vladimir Lantsov	It is important to clarify that the proposed Harmony Dam development is not located within or adjacent to the Kleine Cederberg Nature Reserve, nor do they directly impact the reserve's habitats. However, we recognise the broader ecological principle you raise cumulative habitat fragmentation across a catchment can indirectly affect protected areas, particularly where connectivity between ecological systems is diminished. To mitigate these risks, the following measures are integral to the proposed development: • Abstraction is limited to surplus winter flows only, with no water taken during low-flow (baseflow) periods, thereby helping to maintain flow regimes that support aquatic and riparian habitat downstream. • Development setbacks and riparian buffers have been established in accordance with the Water Use Licence (WUL) and relevant environmental legislation to protect sensitive habitats and natural flow paths. • A detailed Maintenance Management Plan (MMP) will guide the rehabilitation of disturbed riparian zones during and after construction. • The Environmental Management Programme (EMPr) includes provisions for the long-term monitoring and protection of riparian and aquatic ecosystems.	EnviroAfrica

			• A biodiversity monitoring programme will assess ecosystem health, and adaptive management mechanisms will be implemented if any signs of habitat degradation are detected.	
Water extraction concerns.				
Water management transparency.				
Sat 2024/09/07	I request that you describe the monitoring plan and mechanical systems that will be put in place, both up and downstream, to ensure that water use is monitored and that water is being released to ensure that water is not cut off by the proposed dam. Please explain exactly how, at what point and through which process, any rainfall resulting in runoff is declared surplus? I assume that to make a rational decision you would need to already be in possession of water flow statistics. Please provide these and describe how you are taking the effect of climate change into account in this water-stressed area.	J Buckley	Thank you for your question regarding the monitoring systems, thresholds, and mechanisms for managing water abstraction related to the proposed Harmony Instream Dam. In line with the Water Use Licence (WUL No. 01/E21D/AB/9699), a dedicated monitoring and compliance plan will be implemented to ensure that the ecological water requirements of the Houdenbek River and downstream systems, including the Riet River, are upheld. 1. Monitoring Systems for Harmony Dam Flow Measurement and Abstraction Control • A continuous flow-monitoring system will be installed at the abstraction point on the unnamed tributary of the Houdenbek River. • This system will record real-time flow data to verify when abstraction is permissible. • Calibrated flow meters and depth gauges will be installed at the Harmony Dam to track abstraction volumes, storage levels, and release events. • All monitoring devices must be maintained in good working condition and calibrated at intervals (at least every five years) in accordance with WUL Special Condition 9.1. Reporting • The licensee must record all abstraction volumes and submit reports bi-annually to the Department	EnviroAfrica

			of Water and Sanitation (DWS) (WUL Appendix II, Condition 7.2). • An independent audit of compliance will also be conducted annually. 2. Defining and Managing "Surplus Water" is defined per WUL: *"Surplus" is defined operationally in the WUL as exceeding specific monthly flow thresholds and EWRs, not based on historical flow perception.* Abstraction to fill the Harmony Dam is only permitted when there is surplus runoff. This is clearly defined in the WUL as flow that exceeds: • The Ecological Water Requirements (EWR) of the river system. • The existing lawful downstream water uses. • A pre-determined monthly flow threshold based on litres per second (L/s). For example: • In July, abstraction to the Harmony Dam is only allowed if the flow in the tributary exceeds 773 L/s. Below this threshold, no abstraction may occur. These thresholds are monitored using the installed flow sensors, and abstraction must automatically cease if flows fall below the allowed level. 3. Climate Change and Flow Variability The Harmony Dam has been designed with the hydrological variability of the region in mind, particularly in light of climate change. Key considerations include:	

			• No abstraction during low-flow periods, which are expected to become more frequent under a drying climate. • The WUL is valid for 10 years but reviewable every 2 years, allowing DWS to update flow thresholds based on changing conditions. • The licensee is required to adopt water-saving technologies and to adjust practices as needed to conserve the resource (WUL Appendix II, Condition 6). The hydrological model includes allowances for climate change by using conservative runoff projections based on recent rainfall variability. **Conclusion** The Harmony Dam will operate under a strict regulatory framework that prohibits abstraction during ecologically sensitive periods and ensures that flows to downstream users and ecosystems are maintained. These controls, together with long-term monitoring and compliance mechanisms, are designed to safeguard the sustainability of the catchment, including the Riet River. Your concerns regarding water availability, habitat protection, and the role of climate change have been noted and will be included in the Comments and Response Report as part of the EIA process.	
Ecological and economic impact				
Sat 2024/09/07	The Houdenbek river feeds into the Riet Rivier. - There is extensive agriculture in this catchment area and the groundwater use exceeds recharge, thus, groundwater levels have dropped alarmingly. Groundwater contributes significantly to base river flow. There is no account for the downstream ecological impact of	J Buckley	Protecting ecological baseflow and the ecosystems and communities that depend on it has been a core focus of the licensing and impact assessment process for the proposed Harmony Dam. The Freshwater Impact Assessment and the associated Water Use Licence (WUL No. 01/E21D/AB/9699) explicitly recognise the	EnviroAfrica

	restricted flow in the river. It will also have a direct impact on farms and jobs through the area in which the Riet River flows. There is no account for the impact on the wildlife and river life.		role that groundwater discharge plays in sustaining baseflows, especially during dry periods.
			
			To safeguard these systems, the following measures have been built into the project:
			
			Hydrological Protections
			• Abstraction from the tributary is strictly prohibited during baseflow or low-flow conditions, as per WUL conditions.
			• Water may only be abstracted during verified high-flow events, defined using monthly Ecological Water Requirement (EWR) thresholds.
			• Real-time flow monitoring infrastructure will be installed to ensure that abstraction occurs only when flows exceed the pre-determined limits (e.g., 773 L/s in July).
			
			Groundwater and Cumulative Stress Considerations
			• The Harmony Dam project does not involve direct groundwater abstraction.
			• However, the WUL requires ongoing hydrological monitoring to assess cumulative flow conditions, including:
			  ○ Installation of flow gauging and metering systems,
			  ○ Reporting of abstraction volumes and timing, and
			  ○ Submission of records to the Department of Water and Sanitation.
			• Coordination with the Koue Bokkeveld Water User Association and regional water managers may occur in future project phases to address cumulative aquifer stress at the catchment scale.
			
			Ecological and Compliance Safeguards	

			• The WUL includes monthly EWR thresholds, which must be satisfied before any abstraction is permitted.
			• The Freshwater Specialist Report assessed the potential for cumulative ecological degradation and helped define:
			  o Conservative abstraction volumes (250,000 m³/year for Harmony),
			  o No-go zones, and
			  o Strict operational conditions.
			• The Environmental Management Programme (EMPr) and the cumulative impact review are being addressed in the EIA will include:
			  o A biodiversity monitoring programme, focused on riparian and aquatic species health,
			  o Erosion and sedimentation controls, and
			  o Rehabilitation of disturbed vegetation, particularly in riparian areas.
			
			Adaptive Management and Compliance
			• The WUL is valid for 10 years but is reviewable every two years, allowing DWS to adjust licence conditions if evidence of ecological or socioeconomic harm emerges.
			• Required mitigation includes:
			  o Maintenance of buffer zones,
			  o Control of invasive plant species,
			  o Avoidance of further habitat loss, and
			  o Development of a Plant Species Management Plan.
			
			Should monitoring detect downstream degradation, whether ecological or user-related, corrective actions will be required, including:
			• Operational adjustments to the dam and abstraction schedule,	

			• Restoration interventions, and • Where necessary, compensatory measures to affected water users or ecosystems.	
Thur 2024/09/05	There is no account of the downstream ecological impact of the proposed dams, which will restrict flow in the rivers in the catchment areas, with a direct impact on properties through which the Riet River flows, such as Zeekoegat. There is no account for the impact on the wildlife and river life.	Dr David A.H. Buckley	We would like to clarify that the Freshwater Impact Assessment, commissioned as part of the Environmental Impact Assessment (EIA) process, specifically evaluated downstream risks, including potential effects on aquatic species, river connectivity, and ecological flow requirements within the Houdenbek and Riet River catchments. Key Findings: • The direct ecological impact at the Harmony Dam site is considered limited, due to prior agricultural disturbance and the absence of perennial wetlands within the inundation zone. • However, the cumulative effect of reduced downstream flow, particularly in the already water-stressed Riet River, was identified as a significant concern. Safeguards in the Water Use Licence (WUL No. 01/E21D/AB/9699): To prevent negative downstream impacts on properties such as Zeekoegat and to protect aquatic ecosystems, the Department of Water and Sanitation (DWS) has imposed strict, enforceable conditions: • Abstraction is limited to verified high-flow (flood) events and is prohibited during low-flow or baseflow conditions to protect both ecological and user needs. • Abstraction may only occur once measured flows exceed monthly ecological thresholds (e.g., 773 L/s in July), thereby preserving essential flow to sustain	EnviroAfrica

			permanent pools, aquatic habitats, and downstream water rights. • Calibrated flow monitoring systems must be installed upstream and downstream of abstraction points, with bi-annual reporting required to DWS. Additional Biodiversity and Habitat Protections: • The Environmental Management Programme (EMPr) includes requirements for: o A Plant Species Management Plan and riparian buffer zones to maintain ecosystem integrity. o Invasive species control to support the recovery and persistence of indigenous plant and animal species. o Monitoring protocols to track potential ecological decline caused by altered flow regimes or construction-related disturbance. Summary These measures have been designed to ensure that downstream ecological processes, aquatic life, and water users are not adversely affected.	
Environmental degradation concerns				
Sat 2024/09/07	We object to the clearance of the indigenous vegetation for the purposes of the proposed agricultural lands and dam. This is in an area where there are sensitive plants, reptiles and mammals, which are already under huge stress from the agricultural development in the area.	J Buckley	Thank you for your comment regarding the clearance of indigenous vegetation for the proposed Harmony Dam and associated agricultural expansion. The concern about biodiversity loss, particularly in an area already under pressure from existing agricultural development, is fully acknowledged and was a central focus of the environmental assessment process. 1. Botanical Sensitivity of the Site • The Botanical Impact Assessment confirmed that the proposed development footprint falls within two vegetation types:	EnviroAfrica

			○ Winterhoek Sandstone Fynbos (not listed as threatened), and ○ Kouebokkeveld Alluvium Fynbos, which is listed as Critically Endangered under the National List of Ecosystems that are Threatened and in Need of Protection (GN 2747 of 2022). • While some of the proposed agricultural area overlaps with previously disturbed land, the inundation area of the Harmony Dam and adjacent natural areas includes intact indigenous vegetation of conservation value. 2. Faunal Considerations • The site falls within a Critical Biodiversity Area (CBA) and an Ecological Support Area (ESA1), which are important for maintaining ecological processes and habitat connectivity. • The Freshwater and Botanical assessments noted that the area provides potential habitat for sensitive reptile and small mammal species. • However, no Species of Conservation Concern (SCCs) were observed within the proposed footprint during site surveys, although the potential presence of such species is recognised. 3. Mitigation and Offsets To address these impacts, the project includes several mitigation measures: • Avoidance of the most sensitive habitat, where feasible, during final layout refinement. • No-go buffer zones around key ecological and heritage features, including sensitive drainage lines and rock art sites. • Indigenous vegetation rehabilitation around the dam embankment and disturbed areas post-construction.	

			• Invasive alien plant control across the property to reduce competitive pressure on native flora. • A Plant Species Management Plan will guide the rescue and potential translocation of conservation-significant species, where applicable. Additionally, the environmental process has considered CapeNature's recommendation that if the development proceeds, a long-term stewardship or conservation offset mechanism should be considered to compensate for unavoidable habitat loss in this Mountain Catchment Area, which is also a Protected Area under NEMPAA. 4. Monitoring and Compliance • An Environmental Management Programme (EMPr) will be implemented during both construction and operation, with dedicated biodiversity monitoring protocols. • All activities will be subject to compliance auditing, and corrective actions will be required if biodiversity degradation is observed.	
Job creation and impact				
Sat 2024/09/07	I request that you provide quantitative information on exactly what, if any, benefit there will be to the local community in terms of the numbers of seasonal or permanent jobs resulting from this enterprise. The practice of using non-local labour in the area is well established. Much is made of the BBEEE status of the applicant and the unquantified number of jobs that will be created. Nothing is said of the cost of lost jobs further down the river, when the water for those farms dries up.	J Buckley	Preliminary planning estimates indicate the following: <u>Construction Phase (temporary jobs):</u> Short-term employment opportunities are expected to be created during the dam and infrastructure construction phase. These will include general labour, security, machine operation, and site support roles. <u>Operational Phase (long-term jobs):</u> The proposed agricultural expansion will generate an permanent jobs, with additional seasonal jobs during peak planting and harvesting periods. These roles will include farm workers, irrigation managers, maintenance personnel, and support services.	EnviroAfrica

			Skills development: The project will incorporate on-site training for irrigation and land preparation to promote upskilling of local workers, with a view to long-term employment sustainability. Your concern about the potential for downstream job losses due to reduced water availability is also recognised. The Freshwater Impact Assessment and the terms of the Water Use Licence (WUL No. 01/E21D/AB/9699) address this by: • Strictly limiting water abstraction to surplus winter flows and prohibiting abstraction during baseflow periods to protect downstream users. • Requiring flow monitoring and compliance auditing to ensure that no interruption occurs to water availability beyond the licensed thresholds. • Mandating that abstraction cease when minimum environmental flows are not met, thereby preserving ecological and agricultural sustainability downstream. These conditions will be put in place to prevent adverse downstream economic impacts, including on jobs dependent on a stable irrigation supply.	
Final report review				
Sat 2024/09/07	In April 2012, a Final Project Report was completed by the Department of Water Affairs Chief Directorate. Here are a few points from the Report:	J Buckley	Noted.	EnviroAfrica
Water usage restrictions.				
Sat 2024/09/07	Koue Bokkeveldd IUA, which has 2% of the population accounts for 18% of the water usage in the WMA"	J Buckley	The Koue Bokkeveld Irrigation Use Area (IUA), although representing only approximately 2% of the population within the Olifants-Doorn Water Management Area (WMA), accounts for a disproportionately high 18% of	EnviroAfrica

	"No large dams or large water wier development on the mainstream of the Doring, Groot, Riet, Verlorenvlei, Langvlei, Jakkels and Papkuils rivers" "No new licenses for water abstraction in summer (low flow) period of the year in the mainstream of the Olifants upstream of the Clanwilliam Dam, Doring, Groot, Riet, Verlorenvlei, Langvlei, Jakkels and Papkuils rivers." '' The Houdenbeks is fully developed"		total water use. This imbalance is noted in the Olifants-Doorn Catchment Management Strategy and reflects the region's history of intensive irrigated agriculture and its reliance on limited water resources. While this underscores the need for cautious and sustainable water allocation, it also explains why new water uses in the area are now subject to strict licensing, volumetric limitations, and continuous monitoring under the revised regulatory framework. Clarification on the Harmony Dam Project: • The proposed Harmony Dam is located on a small tributary of the Houdenbek River, which flows into the Riet River system. It is not located on the mainstem of the Riet, Doring, or Olifants Rivers, and does not involve large-scale weir or dam construction on these rivers, which remain restricted under national water policy. • The project was granted a Water Use Licence (WUL No. 01/E21D/AB/9699) based on detailed hydrological modelling, ecological assessment, and stakeholder consultation. • Importantly, the WUL prohibits any abstraction during the summer or low-flow periods. Water may only be abstracted: o During winter months, when flows exceed the Ecological Water Requirement (EWR). o When downstream users' existing lawful water use needs are already satisfied. o And only if real-time flow monitoring confirms that a surplus exists. • The total authorised abstraction volume for Harmony Dam is 250,000 m³/year, which represents a small fraction of the Mean Annual Runoff (MAR) in the local E21D quaternary catchment — less than 1% of MAR on its own.	

			• The WUL further includes:
			  ○ Mandatory flow gauging and automated monitoring infrastructure.
			  ○ Biannual reporting to the Department of Water and Sanitation (DWS).
			  ○ And the ability for the licence to be reviewed and amended every two years based on updated flow data or ecological impacts.
			
			Conclusion:
			The Harmony Dam project is compliant with the most recent and restrictive water management policies applicable to the Olifants-Doorn WMA. It has been specifically designed and licensed to ensure that:
			• No summer or baseflow abstractions occur.
			• Downstream ecosystems and users, including the Riet River system, are protected.
			• And that adaptive management and monitoring systems are in place to detect and respond to any signs of ecological or hydrological stress.
			
			This approach ensures that, even in an already water-stressed catchment, the Harmony Dam will not contribute to further over-allocation or degradation of water resources.	

Sat 2024/09/07	I have received information that this area is threatened with major anthropogenic interference, namely the creation of dams on a small river flowing here, the floodplain of which, together with small lakes, makes up a significant part of the territory with the existing original water and near-water biocomplexes. Any change by a person of natural conditions leads to a violation of the ecology of plant and animal species living here, and to a deterioration in the state of biodiversity. The creation of dams on the	Dr Valentin Tikhonow	It is important to clarify that the proposed Harmony Instream Dam is not located within or adjacent to the Kleine Cederberg Nature Reserve or the Swartruggens Conservancy. While the proposed Harmony Dam is located outside the formal boundaries of the Swartruggens Conservancy, the potential for hydrological and ecological connectivity has been carefully considered in the specialist studies. It is situated on a small tributary of the Houdenbek River, within Farm Houdenbek 415, in the Koue Bokkeveld	

	river upstream will lead to the disappearance of the aquatic habitat in the Kleine Cederberg nature reserve, which is part of the Swartruggens Conservancy, the death of representatives of the aquatic flora and fauna, which will affect the entire ecosystem of the region, will have a negative impact on the river system, ecological environment habitats of fish, amphibians, birds and plants not only in the designated region, but also in the surrounding areas hundreds of kilometers downstream.		region, upstream of the confluence with the Winkelhaak River, which flows into the Riet River. A Freshwater Impact Assessment (FIA) was conducted as part of the pre-application environmental process. This study: • Acknowledged the fragility of aquatic and near-water biocomplexes in the broader catchment. • Identified aquatic features (including seasonal channels and riparian habitat) near the proposed Harmony Dam site. • Concluded that while the immediate footprint is of low aquatic ecological value due to historical disturbance, there is a need to prevent degradation of downstream systems, including permanent pools and floodplain habitats. In response to these risks, the Water Use Licence (WUL No. 01/E21D/AB/9699) issued by the Department of Water and Sanitation (DWS) includes several binding conditions to protect aquatic ecosystems: Key Protective Measures: • No abstraction is permitted during baseflow conditions, only during high-flow winter events (surplus water). • Abstraction thresholds based on Ecological Water Requirements (EWRs) must be met monthly before any pumping to the dam can occur. • Real-time flow monitoring infrastructure is mandatory upstream of the abstraction point. • The dam must have release structures capable of restoring environmental flow if required. These controls are in place to protect aquatic habitat continuity and prevent depletion of downstream	

			ecosystems that rely on sustained river connectivity and seasonal inundation. Monitoring, Rehabilitation and Adaptive Management In addition to hydrological controls, the Environmental Management Programme (EMPr) includes: • Riparian buffer zones and protection of near-water habitats from physical disturbance during construction. • Rehabilitation plans for disturbed areas to re-establish native plant cover. • Biodiversity monitoring (targeting riparian vegetation, amphibians, macroinvertebrates and aquatic species). • The project is also subject to regular external compliance auditing and adaptive review. Conclusion: Limited Local Impact, Regional Safeguards Although the comment suggests a potential risk to aquatic systems "hundreds of kilometers downstream", the Harmony Dam is relatively small in scale (250,000 m³) and has been designed specifically to align with current national water policy for sensitive areas. There is: • No year-round abstraction. • No reduction in baseflow. • And a strict requirement to maintain downstream ecological function through engineering, monitoring, and regulatory oversight.	
Environmental oversight request				
Sat 2024/09/07	Please explain how DWAF can be completely ignored and ensure that they are asked to	J. Buckley	We confirm that the Department of Water and Sanitation (DWS), formerly DWAF, is the licensing authority for	EnviroAfrica

	comment specifically on these points. I request that the following experts be appointed and that new studies be done, not just digging up the previous ones: ▪ Botanical specialist ▪ Freshwater specialist ▪ Herpetology specialist (In the previous study, the effect on reptiles is glossed over. Note that this general area has tent the tortoises and Karoo dwarf tortoises (and angulates). There are also red adders and armadillo girdled lizards, all of which are worthy of a 'search and rescue' attempt should this development go ahead.) ▪ Heritage specialist		water use and has been fully involved in the assessment and authorisation process: • The proposed Harmony Dam is governed by Water Use Licence No. 01/E21D/AB/9699, issued by DWS on 27 January 2023, following a formal review of hydrological and ecological impacts associated with the dam. • The licence prohibits abstraction during low-flow periods and requires that abstraction from the tributary to the Houdenbek River may only occur once the monthly Ecological Water Requirements (EWRs) are met. For example, in July, abstraction may only occur when flows exceed 773 L/s. • Flow gauging infrastructure, annual audits, and bi-annual reporting to DWS are mandatory and enforceable. • DWS will be invited again to review and comment on the updated Environmental Impact Assessment (EIA) and specialist reports during the formal public participation period. The WUL, issued on 27 January 2023, is the product of direct technical review by DWS officials and was granted after submission of: • A detailed hydrological model and flow analysis. • A Freshwater Impact Assessment (Watsan Africa, dated 2018). • A Preliminary Design Report and associated engineering calculations. • Confirmation of compliance with instream flow requirements (IFRs) and ecological reserve protection. Should there be additional concerns or new ecological data arising from the updated EIA process, the DWS will	

			be formally re-engaged for comment and review. Your request for their involvement on specific downstream flow and ecological concerns will be specifically communicated. The following specialist studies have been undertaken to inform the environmental assessment to date: <u>Botanical Impact Assessment</u> Title: *Botanical Assessment for the proposed Houdenbek Dams and additional agricultural area near Op-die-Berg, Witzenberg Municipality, Western Cape Province (Amended and Updated Report)* Author: *Dr. David McDonald (Bergwind Botanical Surveys & Tours CC)* Date: *March 2019; amended April / May 2025* Summary: The report evaluates the proposed Harmony Dam site and associated cultivation area, confirming the presence of Winterhoek Sandstone Fynbos at the dam site and Critically Endangered Kouebokkeveld Alluvium Fynbos within the proposed agricultural area. These vegetation types inform mitigation measures and layout decisions for their respective components of the project. <u>Freshwater Impact Assessment</u> Title: *Freshwater Report Proposed Harmony Agriculture on the Farm Winkelhaak 224, Koue Bokkeveld, Ceres District* Author: *WATSAN Africa* Date: *August 2024* Summary: The Harmony Dam's effects on ephemeral drainage lines and downstream aquatic features are assessed. Flow-dependent mitigation measures are linked to conditions in the Water Use Licence. <u>Heritage Impact Assessment (HIA)</u>	

			Title*: Proposed Development of the Harmony Instream Dam and Associated Agricultural Area on the Remainder of Farm Houdenbek No. 415, Ceres, Witzenberg Local Municipality, Western Cape* Author: *Jonathan Kaplan (ACRM)* Date: *October 2024* Summary: Identified three archaeological sites (HMY1–3). HMY1 and HMY2 contain Later Stone Age rock art and were graded as Grade IIIA heritage sites. A 40–50 m no-go buffer has been incorporated into the project design. Conclusion Your request for updated and robust assessments is acknowledged and aligned with the EIA process. All revised specialist reports will be included in the Draft Environmental Impact Report (EIR) and circulated for public review and comment. We further confirm that the DWS will be formally requested to comment again, and any additional input from conservation and biodiversity authorities (e.g., CapeNature) will be integrated before finalisation. These studies formed the basis for regulatory decisions and environmental management conditions, including the terms of the WUL. The reports will be updated as part of the EIA process.	
Stakeholder notification request				
Sat 2024/09/07	As we were not advised of this application, I assume no other neighbours, previous participants and those affected with properties along the river, were either. Please send the notices directly to all these people (you have their email addresses from last time) and allow them time to register their participation in the process.	J Buckley	We confirm that the first round of the Public Participation Process (PPP) was undertaken as part of the project's earlier phases. During this process, all Interested and Affected Parties (I&APS) who registered, submitted comments, or were identified through stakeholder mapping were formally recorded. As the project proceeds into the Scoping and	EnviroAfrica

			Environmental Impact Assessment (EIA) phase, all registered I&APS will be notified of the continuation of the process. They will receive: • Direct communication via email. • Information on the availability of the reports or a copy of the reports. • An invitation to comment. In addition to this, advertisements and site notices were placed (a copy of which is attached as an Appendix) to inform any new interested parties of the opportunity to register and participate.	
Reassessment and transparency				
Sat 2024/09/07	This development was proposed in 2019 and vigorously opposed. It is disappointing that we are seeing another attempt to get it passed. I urge a thorough and transparent reassessment of the project's viability and environmental implications.	J Buckley	The concerns raised during the initial 2019 proposal were acknowledged, and the current application reflects significant revisions made in response to specialist findings and stakeholder input. As part of the current Environmental Impact Assessment (EIA) process, a comprehensive reassessment is being undertaken, including updated botanical, freshwater, and heritage impact studies. The preferred alternatives for infrastructure layout and dam placement have been modified to minimise environmental and cultural impacts, and mitigation measures have been integrated into the project design. All findings and recommendations will be transparently presented during the Scoping and EIA phases, in accordance with the National Environmental Management Act (NEMA) regulations. Stakeholder participation remains a critical component of this process, and all inputs will be considered in determining the project's viability and acceptability. As part of the current Scoping and Environmental Impact Assessment (EIA) process, the project is being	EnviroAfrica

			subjected to a comprehensive re-evaluation that includes: • A full public participation process. • A reassessment of environmental, social, and cumulative impacts in line with current conditions and policies. • Additionally, we can confirm that all comments received are being reviewed and considered in the updated environmental documentation. • The Department of Water and Sanitation has also issued a Water Use Licence, which is subject to strict conditions and ongoing compliance monitoring, but this does not exempt the project from full environmental scrutiny.	
Water supply concern				
Thur 2024/09/05	Our property is bordered to the east by the Riet River, into which the Houdenbek and Winkelhaak Rivers flow. Any disruption to the flow of the Houdenbek River and its catchment will have a direct impact on the Riet River, negatively impacting on this important water resource for us and others downstream of the river and all the natural systems and creatures that rely on it.	Dr. David A.H. Buckley	You are correct in identifying the Houdenbek and Winkelhaak Rivers as important tributaries that ultimately contribute to the Riet River, a vital water source for both human use and biodiversity. Any development within these upper catchments must carefully consider the risk of flow alteration and its potential downstream impacts on water users and aquatic ecosystems. To specifically protect downstream flow integrity and ecological functioning, the following safeguards will be implemented under the conditions of Water Use Licence (WUL No. 01/E21D/AB/9699): • Abstraction is strictly limited to verified high-flow (flood) events, meaning no water may be abstracted during baseflow or low-flow periods when ecological and downstream user demands are highest. • Real-time flow monitoring systems will be installed and maintained at abstraction points to ensure that	EnviroAfrica

			pumping only occurs once minimum flow thresholds are met. • These flow thresholds are based on maintaining ecological water requirements (EWRs) necessary to sustain downstream habitats and species, including riparian vegetation, aquatic fauna, and species dependent on permanent pools. • Auditing and compliance mechanisms are required as part of the WUL to monitor water use and enforce licence conditions. Corrective actions will be implemented in cases of non-compliance. The Freshwater Impact Assessment, supported by hydrological analysis, assessed both the direct and cumulative impacts of the Harmony Dam on the broader Riet River system. Based on this, abstraction volumes and operational conditions have been significantly restricted to ensure that downstream water availability and ecosystem health are maintained. As the project progresses through the Environmental Impact Assessment (EIA) phase, your concern will continue to be considered in specialist reviews and will inform the development of mitigation and monitoring strategies within the Environmental Management Programme (EMPr).	
	The river water is used mainly for domestic purposes up to this point in time. The Houdenbek river feeds into the Riet Rivier. There is extensive agriculture in this catchment area thus the groundwater use exceeds recharge and levels have dropped alarmingly. Groundwater contributes significantly to river base flow. (There has been no flow even after 2019 rains).	Justus & Marguerite Bruwer	Thank you for your comment and for highlighting the importance of the Houdenbek and Riet Rivers for domestic use and ecological sustainability. Your observation regarding declining groundwater levels and reduced river baseflow is valid and reflects broader hydrological stress in the catchment, particularly in the context of extensive agricultural activity. The freshwater specialist study conducted as part of this application recognises the critical role of groundwater in sustaining baseflow, particularly during dry months, and	EnviroAfrica

			the link between over-abstraction and reduced flow in tributaries such as the Houdenbek River. The report also confirms that recent years have seen periods with little to no surface flow, even following substantial rainfall, which may be attributed to both natural variability and cumulative water use impacts. In response to these concerns, the Water Use Licence (WUL) for the proposed Harmony Dam includes several strict conditions to prevent further ecological degradation and protect downstream users: • Water may only be abstracted during verified high-flow periods, not during baseflow or dry conditions, thereby limiting the risk of further reduction in river and groundwater-supported flows. • Real-time monitoring and flow thresholds will guide abstraction operations, ensuring environmental flow requirements are maintained. • The project includes no groundwater abstraction, and its operation is designed to rely solely on surplus winter surface runoff, with abstraction volumes significantly limited to reduce cumulative pressure on the catchment.	
	Approximately 95% of water use in the WMA is used in the agricultural sector. The above-mentioned study/report found that future growth in demand for water is therefore likely to be linked to increased demand from the agriculture sector and not due to increased demand linked to population growth.	Justus & Marguerite Bruwer	It is correct that approximately 95% of water use in the Breede-Gouritz Water Management Area (WMA) is allocated to the agricultural sector, as confirmed by multiple strategic water resource assessments. The Harmony Dam proposal aligns with this context, as it is intended to support agricultural activities by storing surplus winter runoff to ensure more reliable irrigation supply during dry months. Importantly, the project does not propose additional water abstraction beyond what is already authorised under the approved Water Use Licence (WUL). Instead, it seeks to optimise the timing and availability of existing water allocations to improve	EnviroAfrica

			agricultural efficiency while minimising pressure on water resources during low-flow periods.	
	Groundwater defects after taking surface water EWR low flow into account. The Kouebokke veld ground water exceeds recharge and water levels are dropping. Ground water is shallow. Groundwater supply is at risk.	Justus & Marguerite Bruwer	The freshwater specialist assessment for the proposed Harmony Dam recognises these pressures and notes that any development in the catchment must avoid exacerbating groundwater stress. It is important to clarify that the proposed project does not include any groundwater abstraction. The Harmony Dam will be filled using surplus surface runoff during high-flow (flood) events only, as regulated by the project's Water Use Licence (WUL). Abstraction during low-flow periods, when groundwater-supported baseflow is most critical, is strictly prohibited under the WUL conditions.	EnviroAfrica
Water scarcity objection				
Sat 2024/09/07	Our property relies solely on the Riet River as our source of water, which already struggles to flow consistently. I object to the proposed development due to the insufficient water availability in the river and the potential exacerbation of this issue.	Bruce Johnson	As part of the freshwater specialist assessment, the impact of the proposed Harmony Dam on downstream flow in the Houdenbek, Winkelhaak, and Riet Rivers was carefully considered. The proposed dam is designed to abstract only surplus water during verified high-flow (flood) events, and not during baseflow or dry periods when downstream needs and ecological flow requirements are most critical. This is a key condition of the approved Water Use Licence (WUL). In addition, ecological flow releases have been recommended to ensure continued flow downstream during low-flow periods, helping to safeguard users such as yourself who are dependent on the Riet River. Flow monitoring and strict compliance requirements will form part of the project's Environmental Management Programme (EMPr).	EnviroAfrica
	I do not accept the premise that the water collected in the dams will be “winter surplus”, since the catchment did not provide sufficient water to cause the flow in the Riet River for more than 10 years.	Dr. David A.H. Buckley	The Freshwater Impact Assessment acknowledges the hydrological challenges in the catchment, including reduced and inconsistent flows over the past decade. It also recognises the ecological and social importance of maintaining baseflows in the Houdenbek and Riet	EnviroAfrica

	Previously there was constant flow in the river, not just in winter. The water levels at our permanent water holes have been steadily decreasing annually and the situation will be exacerbated if further damming occurs. No account is taken of climate change and the water- stressed nature of the area.		Rivers, particularly given the historical decline in perennial surface flow and groundwater-supported wetlands. While the project proposes to abstract only during verified high-flow (flood) events, this will be governed by the terms of the Water Use Licence (WUL), which includes: • Real-time flow monitoring to ensure that abstraction is triggered only when flows exceed specified thresholds. • No abstraction during baseflow periods or ecologically sensitive low flow conditions. • Ecological flow release requirements to maintain minimum flows and protect aquatic ecosystems and downstream users. The term “winter surplus water” in this context is not intended to imply an abundance of water or an assumption of regular high flows. Rather, it refers to specific flood conditions during which measurable high-flow thresholds are exceeded. In addition, the project team acknowledges that climate change is likely to intensify seasonal variability and water scarcity. These risks are being integrated into the project design through flow modelling, conservative yield assumptions, and adaptive management provisions to limit over-abstraction during prolonged drought periods. Additionally, the environmental authorisation process includes a review of cumulative water stress and ecological impacts, and your comment will contribute meaningfully to this analysis.	
	We, Justus W R Bruwer & Marguerite A Bruwer of the farm De Naauwte, hereby wish to register our objection to the above-mentioned	Justus & Marguerite Bruwer	You have been formally registered as Interested and Affected Parties (I&APs) in the environmental assessment process for the proposed Harmony Dam,	EnviroAfrica

	application. De Naaute hereby wishes to register our objection to the above-mentioned application.		pipeline, and associated agricultural development. Your objection to the application on behalf of the farm De Naauwte has been duly noted and will be included in the official Comments and Responses Report as part of the public participation process. As registered, I&APs, you will receive: • Notifications of upcoming project milestones. • Access to the Draft Environmental Impact Report (EIR) once released for public review. • Opportunities to submit further comments as the assessment proceeds.	
	The farm De Naauwte is severely impacted by the flow of water in the Riet Rivier. The section of the river that runs through our farm has been dry for the past 4 years. Even after the so-called 'good rains' of 2019, the only water available in pods is from the rain runoff. The river is our only source of water.	Justus & Marguerite Bruwer	The environmental assessment team recognises that the Riet River is the sole source of water for many downstream users, and that its ecological and hydrological function has been significantly reduced in recent years. The Freshwater Impact Assessment has carefully evaluated this context and confirms that any further abstraction in the upper catchment must be strictly limited and highly regulated to avoid exacerbating existing conditions. Accordingly, the proposed Harmony Dam is subject to strict conditions in its Water Use Licence (WUL), including: • Abstraction is limited only to surplus high-flow events. • Prohibition of water abstraction during low or baseflow conditions, when downstream users like yourself are most dependent on available flows. • Inclusion of ecological flow releases to maintain some level of water movement downstream. • Real-time monitoring and compliance auditing to enforce these limits. These measures are specifically intended to protect	EnviroAfrica

			downstream flows and prevent any further decline in river conditions for users like De Naauwte. Your comment and objection have been formally recorded and will be incorporated into the Environmental Impact Report (EIR).	
	All farmers/ farms affected have the same right to water. Therefore, more large/ storage dams will have further severe implications for our human consumption and for the wildlife on our farm not to mention the fish species endemic to the Riet Rivier. Winter overflow/surplus is never guaranteed and is required to supply the extremely dry Riet River and further downstream Doorn River. Water stored in dams is regarded as water used. Please be so kind as to acknowledge receipt of this email and letter of objection. Thus, again, we cannot stress enough the importance of no additional dams or enlargement of existing dams within the Olifants Doorn Water Management Area/ Swartruggens Conservancy Area. The irrigated area for the Koue Bokkeveld as a whole is approximately 8 600 but cannot be increased by 15% in all areas. The Houdenbeks is fully developed and therefore should not be awarded a license for further increased irrigation or storage. Please be so kind as to acknowledge receipt of this email and letter of objection.	Justus & Marguerite Bruwer	We hereby formally acknowledge receipt of your submission and confirm that you have been registered as an Interested and Affected Party (I&AP) in the Environmental Impact Assessment (EIA) process. Your concerns regarding equitable water access, ecological protection, and the cumulative impact of additional storage dams within the Olifants-Doorn Water Management Area and Swartruggens Conservancy Area are fully noted. While the proposed Harmony Dam is located outside the formal boundaries of the Swartruggens Conservancy, the potential for hydrological and ecological connectivity has been carefully considered in the specialist studies. We agree with your statement that all farms and farmers in the region have equal rights to access water. The potential cumulative impact of additional large or storage dams on downstream water availability for human consumption, livestock, and wildlife is a key consideration in both the environmental and regulatory review processes. We acknowledge your concern that winter surplus flows are not guaranteed, particularly under changing climate conditions. The proposed Harmony Dam is subject to strict regulation under Water Use Licence (WUL No. 01/E21D/AB/9699), which includes: • Abstraction limits are based on high-flow (flood) events only, with no abstraction allowed during baseflow periods. • Real-time flow monitoring to ensure compliance.	EnviroAfrica

Initial Comments received

			• Ecological flow release provisions to maintain critical downstream flow. • No expansion of the total irrigated footprint beyond what is authorised. Must comply with all licensing, ecological, and hydrological thresholds established by the Department of Water and Sanitation.	
Thur 2024/09/12	I would like to be registered as an interested party for this proposed development and would like to be informed on all decisions made for this project.	Junita Willmans	We hereby formally acknowledge receipt of your submission and confirm that you have been registered as an Interested and Affected Party (I&AP) in the Environmental Impact Assessment (EIA) process.	EnviroAfrica
Thur 2024/09/12	I therefore object to dam building, draining river systems and habitat destruction by ploughing up natural habitat for agriculture and destroying the Swart Ruggens Conservancy and ecological water systems.	Junita Willmans	Your objection to the proposed Harmony Dam, pipeline, and associated agricultural development has been formally recorded as part of the Environmental Impact Assessment (EIA) process, and you have been registered as an Interested and Affected Party (I&AP). Your concern for the integrity of the Swartruggens Conservancy and broader ecological infrastructure is noted and shared by the project team and regulatory authorities. While the proposed Harmony Dam is located outside the formal boundaries of the Swartruggens Conservancy, the potential for hydrological and ecological connectivity has been carefully considered in the specialist studies. While the proposed development is not located within the boundaries of the conservancy, we acknowledge that ecological impacts can extend beyond the immediate project footprint, especially when river systems are involved. To address the environmental concerns raised: The project has been issued a Water Use Licence (WUL No. 01/E21D/AB/9699) with strict conditions to limit abstraction to winter flood flows only, thereby avoiding any reduction in baseflow or dry-season flow needed to	EnviroAfrica

			sustain downstream ecosystems. The project is subject to an Environmental Management Programme (EMPr) that includes: • Limits on vegetation clearance. • Habitat sensitivity mapping to avoid intact natural areas. • Rehabilitation and alien species control measures. • Compliance monitoring and oversight by the relevant authorities. Your objection will be included in the Comments and Responses Report and will directly inform: • The assessment of cumulative ecological impact. • The final recommendations in the Environmental Impact Report (EIR). • Regulatory review by the competent authority, including CapeNature and the Department of Water and Sanitation.	
Threat to water quality.				
Thur 2024/09/05	We rely on the permanent water holes of the Riet River which are threatened with silting and encroachment of reeds should the flow of the river by reduced. We have already seen a cessation of the annual winter flows of the Riet River, which in past years helped to clear the build-up of sand, silt and reeds in the riverbed. This proposed dam will only exacerbate this situation and further compromise the ecology of this river.	Dr. David A.H. Buckley	The freshwater specialist assessment for the Harmony Dam has identified reduced flow downstream, particularly in the Riet River, as a significant potential impact. The report notes that natural sediment transport and channel maintenance processes rely on seasonal flow variability, especially during winter, and acknowledges that diminished flow can lead to the silting up of pools, excessive reed growth, and a decline in aquatic habitat quality. To address these concerns, the project's Water Use Licence (WUL) includes several conditions aimed at protecting downstream ecological processes: • Water abstraction is strictly limited to verified high-flow periods to preserve natural baseflow and allow sediment-transporting floods to occur.	EnviroAfrica

			• Ecological flow releases will be required to support downstream habitat integrity, including maintenance of permanent waterholes. • Monitoring and adaptive management will be implemented through the Environmental Management Programme (EMPr) to assess ongoing flow and sediment dynamics.	
Thur 2024/09/12	I therefore object to dam building, draining river systems and habitat destruction by ploughing up natural habitat for agriculture and destroying the Swart Ruggens Conservancy and ecological water systems.	Junita Willmans	The Environmental Impact Assessment (EIA) process has been undertaken specifically to assess these issues. Specialist studies—including botanical, freshwater, and heritage impact assessments—have identified that: • The proposed dam would result in the loss of Winterhoek Sandstone Fynbos, and the proposed cultivation area overlaps with Critically Endangered Kouebokkeveld Alluvium Fynbos. • Portions of the development fall within a Critical Biodiversity Area (CBA) and Ecological Support Area (ESA), as well as a proclaimed mountain catchment area. • The freshwater systems in the region are ecologically sensitive and already under pressure from cumulative abstraction and land use change. In response to these findings, several mitigation and avoidance measures have been proposed, including: • Selecting the least environmentally damaging alternative dam layout. • Excluding the most sensitive vegetation areas from development. • Implementing ecological flow releases to sustain downstream water systems. • Including a 40–50 m no-go buffer to protect cultural heritage resources. • Developing a biodiversity offset strategy where irreversible loss is unavoidable.	EnviroAfrica

			Your comment will be considered during the compilation of the Environmental Impact Report (EIR) and reviewed by the relevant authorities.	
Repetition of opposition				
Thur 2024/09/05	This development was proposed in 2019 and vigorously opposed. It is disappointing that we are seeing another attempt to get this passed.	Dr. David A.H. Buckley	We understand your disappointment in seeing the project resubmitted and wish to assure you that this new application is being processed as a completely fresh assessment, subject to: • Updated environmental legislation and regulatory requirements. • Engagement of registered Interested and Affected Parties (I&APS). • Comprehensive reassessment through the current Scoping and Environmental Impact Assessment (EIA) process. All public concerns from both past and current rounds of consultation are being fully considered, and the final outcome will be determined by the competent authorities based on environmental merits, legal compliance, and stakeholder input.	EnviroAfrica
Citing 2012 report				
	Please take note that in April of 2012, the Final Project Report done by the Department of Water Affairs, Chief Directorate: Resource Directed Measure, and we quote a few points mentioned in the Report. Koue Bokkeveldd IUA, which has 2% of the population, accounts for 18% of the water usage in the WMA. “No large dams or large water weir development on the mainstream of the Doring, Groot, Riet, Verlorenvlei, Langvlei, Jakkels and Papkuils rivers” No new licenses for water abstraction in summer (low flow) period of the year in the mainstream of the Olifants upstream of the Clanwilliam Dam, Doring, Groot, Riet,	Justus & Marguerite Bruwer	The concerns you raise reflect broader strategic water resource management objectives in the Olifants-Doorn Water Management Area (WMA), including the recognition that areas such as the Koue Bokkeveld IUA, while home to a small portion of the population, account for a disproportionately high share of total water use. The report’s guidelines against new large dams and abstraction during the low-flow summer period in the Doring, Groot, Riet, and related rivers remain critical reference points for evaluating new developments. The proposed Harmony Dam has been reviewed within this context, and the following conditions have been	EnviroAfrica

	Verlorenvlei, Langvlei, Jakkels and Papkuils rivers." ''The Houdenbeks are fully developed." This, in a nutshell, should explain the reason why proposed dams should not be permitted.		applied in line with national water resource management principles: • A Water Use Licence (WUL) has been issued, which strictly prohibits abstraction during the summer (low flow) season. • The licence limits abstraction to surplus winter flows, in line with the strategic recommendation to protect baseflows and aquatic ecosystems. • No abstraction will occur on the mainstream of the Riet River, and the dam is located on a tributary within an already modified sub-catchment. • The licence includes requirements for real-time flow monitoring, ecological flow releases, and compliance auditing to safeguard downstream flows and users. While it is recognised that the Houdenbeks catchment is already highly developed, the current application was subject to fresh specialist review and updated environmental assessments to ensure it aligns with current water management regulations and ecological thresholds. Your objection and reference to long-standing policy positions will be included in the final assessment and taken into full consideration by the competent authority when determining the environmental viability of the proposed development.	
Request for botanical assessment.				
Wed 2024/09/18	I hereby formally request to be registered as an I&AP regarding the proposals to construct the Toeka and Harmony dams on Farm Houdenbek no. 415 (Ceres). As a systematic botanist, conservationist, and consultant, I am concerned about the potential ecological impact that the construction of these two dams would have,	Dr Brian du Preez	We hereby formally acknowledge receipt of your submission and confirm that you have been registered as an Interested and Affected Party (I&AP) in the Environmental Impact Assessment (EIA) process. We appreciate your contribution as a systematic botanist and conservationist, and especially your input	EnviroAfrica

	particularly on the indigenous flora of the region. I trust that you have appointed a suitably competent botanist to assess the botanical diversity of the proposed development footprints. Of particular interest within that region is a newly described, highly localised Aspalathus species, Aspalathus jardinii Du Preez & C.H. Stirt., which I described earlier this year. It is endemic to deep sand dunes of the Riet Rivier and potentially surrounding areas and may thus occur within the proposed development footprint. It is provisionally listed as being Endangered but has yet to be formally assessed and thus is not included among the sensitive plant species in the online screening tool report. I include the relevant literature for you and your appointed botanical specialist.		regarding *Aspalathus jardinii* Du Preez & C.H. Stirt., a recently described localised species of high conservation interest. Your note that the species is not yet reflected in the national screening tool due to its provisional conservation status is particularly valuable. We can confirm that a qualified and independent botanical specialist, Dr. David McDonald of Bergwind Botanical Surveys & Tours CC, has been appointed to conduct the botanical assessment for the project. His report does note the potential presence of Aspalathus jardinii in the area, although no individuals were positively identified during the initial survey, which was conducted outside the flowering season. The report specifically recommends a focused seasonal survey to verify its presence or absence within the development footprint, particularly in areas with deep sandy substrates. The literature you've provided will be forwarded to the botanical specialist and included in the project record to assist with ongoing assessments.	
Concern for biodiversity impact				
Wed 2024/09/18	I am affected by the decisions made by this project due to the conservation of this succulent karoo that needs to be protected overlapped with Kouebokkeveld with its massive diversity and sensitive eco system. I am very concerned about the effect it will have on the biodiversity and natural landscapes.	Dr Brian du Preez	We are committed to ensuring that this newly described and potentially endangered species is afforded the necessary attention and protection throughout the environmental assessment and development process.	EnviroAfrica
Wed 2024/09/18	The regional fauna is characterized by an unusually high level of endemism, which is unprecedented for biotas and reaches, according to rough estimates, up to 80%.	Vladimir Lantsov	While the current scope of the Environmental Impact Assessment (EIA) has focused primarily on botanical, freshwater, and heritage assessments, your observation reinforces the importance of ensuring that all development within this sensitive landscape considers faunal biodiversity as part of its broader ecological context.	EnviroAfrica

			The specialist freshwater report does acknowledge the presence of endemic fish species, such as the Clanwilliam yellowfish (*Labeobarbus seeberi*) and Cape galaxias (*Galaxias zebratus*), both of which are of conservation concern. In addition, the botanical and ecological assessments consider habitat integrity as a proxy for supporting a broader range of biodiversity, including endemic fauna. Your comment will be included in the record for further consideration, and we will ensure that the Environmental Management Programme (EMPr) reflects the need to preserve critical habitat that supports endemic and threatened species.	
Threat to the nature reserve				
Wed 2024/09/18	I have recently learned that the unique private nature reserve of South Africa Kleine Cederberg, which is part of the Swartruggens Nature Reserve, is in great danger due to the possible construction of dams, which could lead to a change in the water regime of the territory and the loss of unique natural communities.	Vladimir Lantsov	It is important to clarify that the proposed development is not located within the boundaries of the Kleine Cederberg or Swartruggens reserves, but rather within the Houdenbek catchment, which ultimately contributes to the Riet River system. While there is no direct infrastructure proposed within the reserves, we fully acknowledge that indirect impacts on hydrology and downstream ecological processes must be assessed with care. As part of the environmental assessment process: The Freshwater Impact Assessment specifically addresses potential cumulative and downstream effects on river flow, baseflow maintenance, and habitat continuity. To minimise hydrological and ecological disruption: • The Water Use Licence (WUL) for the Harmony Dam strictly limits water abstraction to surplus winter high-flow events.	EnviroAfrica

			• No abstraction is permitted during baseflow or low-flow periods, in recognition of the importance of these flows for sustaining downstream biodiversity. • Ecological flow releases and real-time flow monitoring are required to help maintain downstream river health. • These measures aim to reduce the risk of altering the hydro-ecological regime that supports sensitive areas like the Swartruggens Nature Reserve and associated private conservation lands. Your concern regarding the possible disruption of ecological balance in the Kleine Cederberg and surrounding conservation areas has been formally recorded in the Comments and Responses Report and will be reviewed by both the environmental assessment team and the relevant regulatory authorities.	
Focus on Insect Protection				
Wed 2024/09/18	In connection with the fact that for many years I have been studying tipuloid dipterans and participated in the compilation of several regional Red Books (Northern Caucasus), the issues of protecting this group of dipteran insects are the closest to me and it is to them that I would like to draw attention.	Vladimir Lantsov	We acknowledge your request to draw attention specifically to the conservation needs of tipuloid dipterans, a group of insects that often receive limited consideration in conventional environmental assessments, despite their importance as bioindicators and their specialised habitat requirements. While the current Environmental Impact Assessment (EIA) has concentrated on botanical, freshwater, and heritage impacts, your input underscores the need to consider invertebrate diversity and habitat sensitivity, particularly in fynbos and aquatic edge environments that may be inundated or altered by dam construction. Your submission will be: • Shared with the ecological and botanical specialists currently contributing to the EIA process.	EnviroAfrica

Initial Comments received

			• Formally included in the Comments and Responses Report and biodiversity sensitivity review. • Considered in any updates to the Environmental Management Programme (EMPr), particularly regarding wetland habitat protection and microhabitat preservation.	
Wed 2024/09/18	Crane flies (Tipuloidea) are a group of families of long-horned dipterans, the world fauna of which includes 15,726 species (Oosterbroek, 2024).	Vladimir Lantsov	This information will be: ▪ Included in the Comments and Responses Report. ▪ Shared with the appointed faunal and freshwater specialists. Reflected in the biodiversity risk and cumulative impact sections of the Environmental Impact Report (EIR).	EnviroAfrica
Wed 2024/09/18	In South Africa, 258 species of crane flies (Oosterbroek, l.c.) have been identified to date, and a certain proportion of these species certainly live in the Swartruggens Nature Reserve, part of which is located within the Kleine Cederberg Reserve.	Vladimir Lantsov	Your reference to the work of Oosterbroek, P. (2024). Catalogue of the Crane Flies of the World, noting that the world fauna of Tipuloidea includes 15,726 species, is noted. This information will be shared with the botanical, freshwater, and faunal specialists contributing to the Environmental Impact Assessment (EIA) and formally recorded in the Comments and Responses Report. Where applicable, it will provide recommendations in the Environmental Management Programme (EMPr) regarding habitat preservation, particularly for sensitive insect groups.	EnviroAfrica
Thur 2024/09/26	NOTIFICATION OF INTENT TO DEVELOP: PROPOSED CONSTRUCTION OF HARMONY INSTREAM DAM ON FARM HOUDENBEK 415, EAST OF OP DIE BERG ON THE R304, CERES, PRINCE ALFRED HAMLET, SUBMITTED IN TERMS OF SECTION 38(1) OF THE NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999) The matter above has reference. Heritage Western Cape is in receipt of your application for the above matter received. This matter was discussed at the Heritage Officers Meeting held on 19 September 2024.	HWC	Noted.	EnviroAfrica

	You are hereby notified that, since there is reason to believe that the proposed construction of harmony instream dam on Farm Houdenbek 415, East of Op Die Berg on The R304, Ceres, Prince Alfred Hamlet, will impact on heritage resources, HWC requires that a Heritage Impact Assessment (HIA) that satisfies the provisions of Section 38(3) of the NHRA be submitted. Section 38(3) of the NHRA provides 3). The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2)(a), Provided that the following must be included: (a) The identification and mapping of all heritage resources in the area affected. (b) An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7. (c) An assessment of the impact of the development on such heritage resources. (d) An evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development; (e) The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources; (f) If heritage resources will be adversely affected by the proposed development. The consideration of alternatives, and (g) plans for mitigation of any adverse effects during and after the completion of the proposed			

	development (Our emphasis) This HIA must, in addition, have specific reference to the following: • Archaeological Impact Assessment • Palaeontological Impact Assessment The HIA must have an overall assessment of the impacts to heritage resources which are not limited to the specific studies referenced above. The required HIA must have an integrated set of recommendations. The comments of relevant registered conservation bodies, all Interested and Affected parties, and the relevant Municipality must be requested and included in the HIA, where provided. Proof of these requests must be supplied. If applicable, applicants are strongly advised to review and adhere to the time limits contained in the Standard Operational Procedure (SOP) between DEADP and HWC. The SOP can be found using the following link: http://www.hwc.org.za/node/293. Kindly take note of the HWC meeting dates and associated agenda closure date in order to ensure that comments are provided within as Reasonable time and that these times are factored into the project timeframes. HWC reserves the right to request additional information as required.			
Aquatic Species endemism				

Initial Comments received

Wed 2024/09/18	The genera Limonia (2 species), Platylimnobia (5 species), Trichotrimicra (3 species), Dicranoptycha (2 species), Dolichopeza (17 species), Atarba (4 species), Idiognophomyia (3 species), Elephantomyia (9 species), Geranomyia (7 species), Neolimnomyia (2 species), Ellipteroides (6 species), Eugnophomyia (3 species), Geranomyia (7 species), Idiognophomyia (3 species), Limnophila (3 species), Platylimnobia (5 species), Limnophilomyia (3 species) are completely endemic. Almost all of these species are confined to aquatic or near-aquatic habitats.	Vladimir Lantsov	Your contribution has been formally recorded and will be: • Shared with the appointed faunal and freshwater specialists for further consideration. • Included in the biodiversity and cumulative impact sections of the Environmental Impact Report (EIR). • Used to inform the development of the Environmental Management Programme (EMPr), particularly with respect to wetland habitat conservation and microhabitat protection. • This feedback has been shared with the botanical and freshwater teams. Where feasible, targeted invertebrate habitat verification will be considered in the final site sensitivity mapping	EnviroAfrica
Wed 2024/09/18	Monotypic endemic genus: The amazing endemic, narrow-range, monotypic genus Quathlambia - with the only species Quathlambia stuckenbergi Alexander, 1956, living in South Africa. The species is distinguished by reduced wings and halteres, and the legs are covered with scales.	Vladimir Lantsov	We acknowledge the unique characteristics of this species, including its reduced wings and halteres, and scale-covered legs, which not only distinguish it taxonomically but also reflect its highly specialised ecological adaptations. Its limited distribution and distinctive morphology underscore its conservation significance, particularly in the context of environmental changes that may impact microhabitats and niche ecosystems. Your contribution has been formally recorded and will be: • Shared with the appointed faunal and freshwater specialists for further consideration. • Included in the biodiversity and cumulative impact sections of the Environmental Impact Report (EIR); • Used to inform the development of the Environmental Management Programme (EMPr). • This feedback has been shared with the botanical and freshwater teams. Where feasible, targeted invertebrate habitat verification will be considered in the final site sensitivity mapping	EnviroAfrica
Wed 2024/09/18	**Endemic hygrophilous species.**The endemic hygrophilous Tipula (Savtshenkia) draconis	Vladimir Lantsov	We acknowledge the particular ecological sensitivity and conservation importance of *T. draconis.* The	EnviroAfrica

	Alexander, 1964 is the only representative of this extensive subgenus in South Africa.		presence or potential presence of species such as T. draconis will be considered in: • The refinement of biodiversity sensitivity maps. • The botanical and faunal verification surveys as part of the EIA process. • The development of site-specific mitigation and habitat protection measures within the Environmental Management Programme (EMPr). • This feedback has been shared with the botanical and freshwater teams. Where feasible, targeted invertebrate habitat verification will be considered in the final site sensitivity mapping	
Wed 2024/09/18	**Unique Gondwana-origin fauna**: The entomofauna of South Africa is certainly one of the most unique on the African continent. The fauna includes numerous taxa, the phylogenetic relationships of which indicate their ancient origin. Their presence here is explained by the fact that they are the remains of groups that inhabited the ancient continent of Gondwana before its division into modern continents (Australia, Africa and South America).	Vladimir Lantsov	We acknowledge that the South African entomofauna includes numerous relictual and endemic taxa. Your comment has been formally recorded and will inform both: • The biodiversity and cumulative impact sections of the Environmental Impact Report (EIR); and • Recommendations for further specialist faunal input and site-specific conservation measures in the Environmental Management Programme (EMPr). • This feedback has been shared with the botanical and freshwater teams. Where feasible, targeted invertebrate habitat verification will be considered in the final site sensitivity mapping	EnviroAfrica
Habitat loss, biodiversity				
Wed 2024/09/18	As is known, the disappearance of species is often associated with the loss of their habitats, given that a significant part of the entomofauna and, in particular, tipuloid dipterans, are topically confined to aquatic and near-water communities, their loss in the Kleine Cederberg nature reserve will inevitably lead to the disappearance of unique biota. Please consider my opinion when making a decision.	Vladimir Lantsov	We fully acknowledge your concern that any hydrological disruption or habitat alteration, including that potentially caused by dam construction, may contribute to the local extinction of specialised and endemic species within the Kleine Cederberg Nature Reserve and its surrounding ecological corridors. Your opinion and ecological warning have been formally recorded as part of the public participation process and will be:	EnviroAfrica

			• Considered in the evaluation of biodiversity and ecosystem-level impacts in the Environmental Impact Report (EIR). • Shared with specialist ecologists and conservation authorities involved in the review of the proposed development. • Reflected in any mitigation or offset recommendations that may arise during the EIA process. • This feedback has been shared with the botanical and freshwater teams. Where feasible, targeted invertebrate habitat verification will be considered in the final site sensitivity mapping	
Sat 2024/09/07	I can report that there are a large number of near-water insects from various orders and families. There are many species of dragonflies of the families: *Sylestidae*, *Coenagrionidae* (Masai Sprite, Hagen's Sprite), Anisoptera (Common Thorntail), *Aeshnidae* (Blue Emperor and Friendly Hawker), Libellulidae (about 10 species). Of the praying mantises found here are Flower Mantid, Boxer Mantid, Common Green Mantid, Delicate Mantid, Marbled Mantid, Ground Mantid, Stick Mantid and *Coneheaded* Mantid. There are a large number of species of Grasshoppers and *Locuts* (Orthoptera), such as Foam Grasshopper, Elegant Grasshopper, Common Stick Grasshopper, Green Tree Locust, Brown Locust, Garden Locust and Blue-wing. Quite numerous Water Bugs: Pygmy water boatmen, Common Beckswimmer, Stout Beckswimmer, Flat Saucer Bugs, Water Stick Insects and Common Water Scorpion.	Valentin Tikhonov	Your contribution will be: • Shared with the faunal and freshwater specialists for potential field verification. • Included in the Comments and Responses Report. • Used to inform biodiversity sensitivity mapping and appropriate mitigation or conservation measures in the Environmental Management Programme (EMPr). • This feedback has been shared with the botanical and freshwater teams. Where feasible, targeted invertebrate habitat verification will be considered in the final site sensitivity mapping	EnviroAfrica
Sat 2024/09/07	This area is home to unique Karoo endemics from the order *Mantophasmatodea:* Jade Heel-walker (*Viridiphasma clanwilliamense*), Namaqualand Heel-walker (*Karoophasma*	Valentin Tikhonov	This information has been: • Formally recorded in the Comments and Responses Report.	EnviroAfrica

	biedouwense) and Fynbos Heel-walker (*Lobatophasma redelinghuysense*).		• Shared with the faunal specialist team to evaluate the likelihood of suitable habitat within or adjacent to the development footprint. • Flagged for inclusion in the biodiversity sensitivity analysis and mitigation planning within the Environmental Impact Report (EIR) and Environmental Management Programme (EMPr). • This feedback has been shared with the botanical and freshwater teams. Where feasible, targeted invertebrate habitat verification will be considered in the final site sensitivity mapping	
Emtomology study				
Sat 2024/09/07	In August 2017 and October 2018, I visited the private nature reserve Kleine Cederberg in South Africa with professor of botany Alexander Ivanov. My profession is entomology and I studied the insects of this park, including those in the floodplain of the Haudenbek River.	Valentin Tikhonov	While the proposed Harmony Dam is not located within the Kleine Cederberg reserve, the comment highlights the ecological connectivity between upstream tributaries such as the Houdenbek and downstream conservation areas. The floodplain habitats you reference are particularly important for supporting specialised and often overlooked invertebrate communities. Although specific invertebrate surveys were not part of the initial scope of the environmental assessment, your input will be shared with the ecological and botanical specialists for further consideration.	EnviroAfrica
Environmental expert, conservationist, author.				
Sat 2024/09/07	I am a specialist in the field of environmental protection in the North Caucasus region; I am an expert in environmental protection in the North Caucasus region, the author of essays on butterflies in the Red Book of Stavropol region and the author of the website babochki-kavkaza.ru.	Valentin Tikhonov	While your work focuses on a different geographic region, your expertise in invertebrate conservation and sensitive species identification is relevant and appreciated in the context of this project. The proposed Harmony Dam site lies in an area with high ecological value and local endemism, including vulnerable vegetation types and riparian systems that may support diverse invertebrate populations.	EnviroAfrica
Sat 2024/09/07	I have been studying the consequences of human exposure to the environment and the conservation of biodiversity, and I express my	Valentin Tikhonov	Your objection to the construction of the dam has been formally recorded and will be included in the Comments and Response Report submitted to the competent	EnviroAfrica

	negative attitude to the construction of Houdenbek Onder Dam at the Howdenbeck Farm No. 415 Ceres. Please take my opinion into account when making a decision.		authority as part of the Environmental Impact Assessment (EIA) process. All registered objections and inputs from Interested and Affected Parties (I&APs) form an important part of the decision-making process, and your view will be considered alongside the findings of the specialist studies and regulatory requirements.	
2017/07/21	CapeNature would like to thank you for the opportunity to comment on this application.	CapeNature	Noted.	EnviroAfrica
2017/07/21	Please note that CapeNature does not support new instream dams or enlargement of existing instream dams unless it can be shown that the ecological condition of the river/stream in which the dam is located can be improved and no significant terrestrial or aquatic habitat will be lost.	CapeNature	The policy position has been considered throughout the Environmental Impact Assessment (EIA) process for the proposed Harmony Dam. The freshwater and botanical specialist assessments have identified both ecological sensitivities and areas of historical disturbance within the proposed dam footprint. In response, the project has been revised to: • Select the least ecologically disruptive layout Option 3 avoids Kouebokkeveld Alluvium Fynbos, sensitive riparian zones, and heritage sites (HMY1–2). avoiding more intact fynbos and heritage resources. • Implement ecological flow releases and real-time flow monitoring to maintain downstream habitat integrity. • Restrict abstraction to surplus high-flow events only, as per the conditions of the approved Water Use Licence (WUL). • Avoid the Critically Endangered Kouebokkeveld Alluvium Fynbos, which is present in the agricultural expansion area but not within the dam footprint.	EnviroAfrica
2017/07/21	Harmony Dam is not supported by CapeNature as it is located within a proclaimed Mountain Catchment Area (Kouebokkeveld MCA). No activities which result in loss of habitat or alteration of water flow or quality should be permitted in MCAs. MCAs are of very high	CapeNature	CapeNature's policy that no activities resulting in habitat loss or alteration of water flow or quality should be permitted within MCAs is noted and taken seriously. The environmental assessment process has recognised the ecological and hydrological importance of this area and	EnviroAfrica

	conservation value and should be treated and managed as formal protected areas. Runoff from this MCA assists in maintaining the water quality of the Houdenbeks River and groundwater recharge. It should be noted that a significant amount of water is already being captured by the dams in the Houdenbeks River and the many smaller dams in the Quaternary Catchment Area.		has evaluated the proposed development in that context. Key considerations and mitigation measures include: • Selection of a dam layout Option 3 avoids Kouebokkeveld Alluvium Fynbos, sensitive riparian zones, and heritage sites (HMY1–2) that avoid the most sensitive areas and utilises a previously disturbed footprint to minimise habitat loss. • The implementation of ecological flow releases to maintain downstream water quality and ecosystem services. • Abstraction limited to surplus high-flow periods only, with real-time flow monitoring to ensure protection of baseflows and recharge processes. • Compliance with the conditions of an approved Water Use Licence (WUL), which incorporates hydrological and ecological safeguards. • Recognition that no critically endangered vegetation types will be lost at the dam site itself (though present in the proposed cultivation area).	
2017/07/21	Toeka Dam is not within the MCA, however, it is proposed within an area determined as Ecological Support Area (ESA). Although it is acknowledged by the 2017 Biodiversity Spatial Plan that some of the ESA is degraded, the ESAs on this site have been determined as such because they are important for groundwater recharge, watercourse protection and the presence of a channelled valley bottom wetland. Ideally this area should be rehabilitated to allow for improved water flow and ecological functioning.	CapeNature	Noted.	EnviroAfrica
2017/07/21	Should the applicant wish to pursue the applications for these dams, a freshwater specialist must be appointed to consider direct	CapeNature	Your recommendation that a freshwater specialist be appointed to assess direct and cumulative impacts, determine the Ecological Flow Reserve, and evaluate	EnviroAfrica

	and cumulative impacts and to determine Ecological Flow Reserve and river rehabilitation requirements. However, our objection to Harmony Dam is likely to remain in place as development of a dam in the proposed location is contrary to the conservation objectives of a MCA.		river rehabilitation requirements is noted and has already been addressed as part of the current Environmental Impact Assessment (EIA) process. A freshwater specialist study has been completed and includes: • An assessment of the ecological sensitivity of the Houdenbeks River and tributaries. • Analysis of the cumulative effects of the Harmony Dam. • Recommendations for ecological flow releases and real-time flow monitoring to safeguard downstream users and aquatic ecosystems. • Consideration of the broader hydrological context within the Olifants-Doorn Water Management Area.	