



BYEVANGER DAM: JG NEL FAMILY TRUST
Socio-economic assessment
STATUS: DRAFT

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ABSTRACT

This is a **COMBINED REPORT** in terms of the National Environmental Management Act, Act No 107 of 1998 and the National Water Act, Act 36 of 1998.

The Socio-economic Impact Assessment and Report was done in terms of Section 27(1) b-d of the National Water Act, Act 36 of 1998, the National Environmental Management Act (NEMA, Act No 107 of 1998 as amended), the 2014 Environmental Impact Assessment (EIA) Regulations (as amended) & the 2017 24G Regulation.

The Applicant commenced listed activities in contravention of:

- a) Section 24(f) of NEMA, without the necessary environmental authorization and is now applying for ex post facto approval via a Section 24G Application process.
- b) Section 32 of the NWA. The applicant is now applying for a water use licence for the authorisation of water uses to:
 - Section 21(A) The Taking of Water
 - Section 21(b) The Storing of Water
 - Section 21(i) The Altering of the banks of a Water Course

The Applicant commenced with the construction of the Byevanger Dam, without the necessary water use authorisations, nor the environmental authorisations. The Trust commenced in 2018 with the construction of the Byevanger dam on Portion 3 of the Farm Buffelsfontein (C042-036-003 and abutting on Portion C042-042-066 in Quaternary J11J).

The following construction was executed:

- a) A Full Supply Volume of 149 621.62 m³. and a Full Supply Area of 3.1 ha.
- b) The dam wall height is 10.7 meters.
- c) The dam wall is approximately 208 meters long.

The full supply is 139 621 m³ more than what the previous dam was authorised for.

The Byevanger dam is an in-channel dam. The Trustees/owners stated that the objective of building the dam was to replace the broken Rooikrans dam. The Rooikrans dam, existed close to the current dam. Storage in the Rooikrans dam was verified for 10000m³. It was an off-channel dam and was situated in a lower position in the valley than the Byevanger dam. It was also an older dam that was built before the Floriskraal dam was built (1957). Floods in the valley above the dam damaged the old dam wall and lands below the dam. In 2014 it was damaged in a flood to such an extent that it could not be repaired. The owners decided after the last floods to move the dam wall upstream to get a better position for the wall and overflow of the dam in case of floods.

Data collection and investigation took place through:

- a) Meetings with EAP practitioner, Cape Eaprac
- b) Meetings with water specialist and dam safety engineer, Gorra Water
- c) Site visit to the Byevanger dam and the farm VanZylsdamme.
- d) Meetings with dr Magdalena Nel and mr Fanie Nel, trustees of the JG Nel Family Trust
- e) Data collection re the agricultural environment
- f) Studied reports:
 - Fresh water report
 - Dam safety report

A study was made of the legal and institutional environment and the Trust was assisted with implementing its plans for a BB-BEE company to adhere to Section 27(1) b-d of NWA:

The Trust was assisted with:

- Identifying possible mitigation measures
- Identifying steps to comply with legal requirements
- Developing and implement legal structures to address requirements
- Identifying HDI beneficiaries

- Assess needs of beneficiaries
- Negotiating and developing contracts.

The J G Nel Family Trust **owns the farm** Vanzylsdamme.

The **production company** is Vanzylsdamme Boerdery (Pty)Ltd.

The farm VanZylsdamme consists of 49 divisions, that make up a total of 9951, 6954 hectares.

The Trust rents 40 hectares of the farm to the neighbour, Mr ZJ Tua of the farm Lofdal, and the rest of the farm to the company, Vanzylsdamme Boerdery (Pty)Ltd. The neighbour mr Toua is the owner of the farm Lofpoort. He bought Section 66 of Voorbaat 42 on 1/3/2015. A dam servitude was registered at that stage on section 3 of the farm Buffelskloof 36 (Registered on 29/06/2010). The Byevanger dam is situated partly on 66/42 - mr Toua gave permission for the construction and water storage on his farm. Verbal confirmation was that the servitude entitles mr Toua to 1/3 of the water in the dam.

The Trustees of the J G Nel Family Trust are Dr. Magdalena Nel, Mr Stefanus Nel and the independent Trustee is Mr. Ronaldo Groenewald. The Directors of the Vanzylsdamme Boerdery (Pty)Ltd are Dr Nel and Mr S Nel.

The Trustees and the Directors are persons who had voting rights before 1994.

VanZylsdamme (Pty)Ltd rents the land from the JG Nel Familie Trust and does not own any land. The trustees of the JG Nel Familie Trust stated that no land may be sold by any trustee. The Trust is willing to rent land to the Association if a viable option for empowerment is identified. VanZylsdamme (Pty)Ltd will assist the Association to become commercial farmers. It is also exploring the possibility of making shares in the new pomegranate pack shed available for the Association.

VanZylsdamme (Pty)Ltd has been involved in setting up the Dam Worker Association, a Partnership with 5 Partners. All the Partners are employees on the

farm and part of the management team. They are individuals who did not have voting rights in South Africa before 1994:

Name of Partner	Identity number	Share
Dail van Wyk	6106155249088	20%
Sameul Adams	6706156109080	20%
George Masango	6712175662083	20%
Cedric Adams	8611125725081	20%
Jacoline Lehmann	7311220354082	20%

The farm employs thirty-seven (37) permanent staff, of which twenty-one (21) are men and sixteen (16) women. Nineteen (19) of the permanent staff are youth. Twenty (20) temporary staff is employed fulltime for 9 months of the year. Ten (10) of the temporary staff are youth.

There are thirty-five (35) staff houses on VanZylsdamme. All the houses have running water and either flushing or VIP toilets. All the houses have electricity.

One hundred and thirteen (113) adults and forty (40) children live on the farm. Thirty-two (32) are school going children. Twenty-one (21) are pensioners and nine (9) receive disability grants. Six (6) are female-headed households.

The Trust is willing to rent land to the Association if a viable option for empowerment is identified. VanZylsdamme (Pty)Ltd will assist the Association to become commercial farmers. It is also exploring the possibility of making shares in the new pomegranate pack shed available for the Association. The Contract between JG Nel Familie Trust, VanZylsdamme (Pty)Ltd and the Dam Workers Association is in the process of being finalized (Draft Contract Attachment 9)

Economic impacts helps determine if a project will enhance net societal welfare for different sectors and groups of society. VANZYLSDAMME BOERDERY (PTY)LTD spent in the financial year 2017-2018 **R9 821 194** in Ladismith in the Kannaland municipality.

With an average output multiplier factor of 2.3 the farm contributed on average **R22 785 170** pa to the local economy from production and capital expenses. An authorized licence to store more water can bring VANZYLSDAMME BOERDERY (PTY)LTD again to full production and expansion. The estimated increased expenditure will be **R6 869 298.0**. It will multiply to an added **R15 936 771** turned over in the local economy.

The agricultural and employment status after commencement of the unlawful activity is unchanged from before the commencement.

The economic status after commencement of the unlawful activity is changed from before the commencement. R1 314019 was spent in the regional economy to build the dam.

Alternatives to be considered are:

Authorizing the dam and increased storage

The farm will have the water security for:

- More permanent crops planted which are more labour intensive (plums, grapes and figs)
- Increased production of the pomegranates with better irrigation
- Lucerne production on lands that are now fallow
- More staff required for increased fruit and onion seed production and export(80 new permanent positions to be created)
- More temporary staff for planting and harvesting (40 new temporary positions created).

It will mean job security for the current employees and their families living on the farm

The newly constituted HDI partnership will be able to rent land and plant cash crops. They will also be able to obtain shares in a packing facility.

2. Not authorizing the dam

- The farm will not have water security and will not be able to increase production.
- Should the drought continue productivity will decrease? If permanent crops (fruit trees) are lost it will have long term impact and take +5 years before new trees bear crops again.
- Decreased production will mean loss of export and might lead to permanent loss of overseas markets
- There will not be job security and probable job losses if the drought continuous
- No new job opportunities will be created in an area with high unemployment and high dependency in agriculture.
- The newly constituted HDI partnership will not have water to start farming.

3. Authorising only the original 10 000,m3 storage from the Rooikrans dam

The farm will have some water security if the drought does not continue and there is enough run-off from the valley to store. Only two thirds of the 10 000m³ will be available for VanZylsdamme. One third (3 334m³) goes to Lofdal according to the servitude registered on the previous dam.

It will not be able to plant more permanent crops which are more labour intensive (plums, grapes and figs). Current production of the pomegranates will probably stay the same or decrease in the ongoing drought.

It will mean job security for the current employees and their families living on the farm

The newly constituted HDI partnership's agricultural activities will be dependant on the availability of water.

There is broad scientific consensus that the global temperature is increasing and these changes are likely to impact on the suitability of growing conditions. It is also expected that the frequency and severity of extreme floods and droughts will increase. This will be a challenge to the agricultural sector that needs to deal with increased water requirements at different times of the year. Agriculture is being pressurised by economic, climatic and social factors. These pressures will result in

shifts in the nature and possibly the extent of agricultural production over the next couple of decades (Breede Gourits Catchment Management Strategy, p 29).

Strategic Measure 2.7 of the BGCMS states that strategies must be adopted to reflect climate change aspects and that drought resilience must be built or developed (p 73).

Vanzylsdamme currently functions at 50% capacity due to water shortage and lack of sustainable water provision. The farm has 420 hectares listed with the Buffelsrivier Irrigation Scheme. The scheme provided the farm in the past with 7 900m³ water three times a year. That enabled the farm to produce about 3 200 tons of lucerne in the period of abundant water @ R3 000,00 per ton. No water has been available from the Buffelsrivier Scheme since the drought because the Floriskraal Dam has been empty for the last five (5) years. There is 276ha of the farm that cannot be farmed since 2015 due to the drought. Taking of water has therefore decreased as well as storage due to the breaking of the Rooikrans dam.

The farm can increase production with 50% standards if they can have water security through sustainable water storage.

It can be concluded that there was and is a need for:

- Prevention of job losses
- Employment creation, especially for unskilled and semi-skilled persons
- Employment creation for women
- Employment for Historically Disadvantaged Individuals. Most or all farm labourers are HDIs and will benefit from sustainability in the agricultural sector.
- Participation in agriculture enterprises by HDI's
- Regional economic growth
- Water security through:
 - The expansion of the Byevanger dam
 - Increased taking of water from upstream of the dam.

The impacts on down-stream users are unknown and must be assessed in the final report after data obtained in the public participation process. The dam may not store water at the moment-there is no impact on down-stream users.

The requirements of Section 27(1) b-d were by this application:

- a) Ownership and race and gender imbalances were partially addressed
- b) The efficient and beneficial use of water in the public interest was met through
 - Partial meeting transformational goals
 - Meeting local strategic objectives
 - Rural development in terms of food security and agrarian reform
 - Addressing social discrepancies in wealth and opportunities
 - Eradication of extreme poverty and hunger through job opportunities that will address unemployment and create sustainable livelihoods and local economic growth stimulated.

The socio-economic impact of the water uses if authorised or not were assessed in terms of Section 27(1) d of the NWA together with the required assessment for the 24G process prescribed in NEMA.

The following 6 socio-economic impacts were identified and analysed:

- a) Racial and gender imbalances addressed in benefiting from water use
- b) Transformation in the water and agricultural sector
- c) Rural development in terms of food security and agrarian reform addressed
- d) Social discrepancies in wealth and opportunities addressed
- e) Job opportunities that will address unemployment and create sustainable livelihoods
- f) Local economic growth stimulated

The unlawful activities have not yet given rise to negative socio-economic impacts.

It is recommended that the following mitigatory measures be implemented and included in the EMP:

- The creation of the BB-BEE partnership between JG NEL FAMILY TRUST and VANZYL DAMME BOERDERY (PTY)LTD and Dam Workers Association, as well as the DRAFT **contract** currently in discussion between the Trust and the Association, should be finalized and will then be mitigatory steps.
- The Final Contract can entirely be added to the EMP to be monitored.
- The creation of 80 permanent and 40 temporary job opportunities is an important mitigatory step. A 5-7 year implementation plan, containing timeframes and numbers and taking probable weather scenarios into account should be made part of the EMP.

It can be concluded that there was and is a need for water security to keep the farm going (after the loss of the storage in the Rooikrans dam as well as the loss of the water received 3 times a year from the Buffelsdrift Irrigation scheme). Building the Byevanger dam is an attempt to make provision for lost storage and lost taking of water (420 hectares listed with the Buffelsrivier Irrigation Scheme cannot be farmed because of the loss of taking 7 900m³ water 3 times a year for the last 4 years). Taking of water from the valley and tributaries upstream of the new dam is an attempt for water security and creating job security and livelihood sustainability for the employees of VanZylsdamme and their families

Desirability of the action:

The unlawful manner in which JG NEL FAMILY TRUST built a new dam that will be able to store 139 621 m³ water more than the verification for the previous dam, Rooikrans, was **undesirable**. The full impact on the riverine system and downstream users is not yet

It can be argued building the dam is a desirable action. Authorising the infrastructure and increased taking from the area above the dam will:

- a) Partially meet the requirements of section 27(1) b of the NWA in terms of redress the results of past racial and gender discrimination

b) Meet the requirements of section 27(1) b of the NWA in terms of efficient and beneficial use of water in the public interest through:

- Meeting local strategic objectives
- Meeting transformational goals
- Rural development in terms of food security and agrarian reform
- Address social discrepancies in wealth and opportunities
- Contribute towards eradication of extreme poverty and hunger
- Create job opportunities that will address unemployment and create sustainable livelihoods
- Stimulate local economic growth

Authorising the activities, increased taking and increased storage will give rise to positive impacts that are local and regionalised. Some decision makers have in recent times developed a disregard for the positive impacts of new employment opportunities and job security. They might have lost touch with the serious scourge of hunger and the other impacts of extreme poverty. ALL OPPORTUNITIES to create sustainable livelihoods must be grabbed if they do not give rise to serious environmental damage. Assessing the best alternative can involve looking for the net benefit that will flow from the next best alternative.

COMBINED REPORT
SOCIO ECONOMIC ASSESSMENT AND
WATERUSE LICENCE APPLICATION FOR
JG NEL FAMILY TRUST

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1. OVERVIEW

1.1 INTRODUCTION

This is a **COMBINED REPORT** in terms of the National Environmental Management Act, Act No 107 of 1998 and the National Water Act, Act 36 of 1998.

The assessment was done for the Byevanger dam, located on Portion 3, Farm 36, Buffelsfontein in the Ladismith District, Quaternary catchment J11J, WESTERN CAPE PROVINCE, on behalf of the Applicant, the Johannes Gerhardus Nel Family Trust (Attachment 1)

The Socio-economic Impact Assessment and Report was done in terms of Section 27(1) b-d of the National Water Act, Act 36 of 1998, the National Environmental Management Act (NEMA, Act No 107 of 1998 as amended), the 2014 Environmental Impact Assessment (EIA) Regulations (as amended) & the 2017 24G Regulation.

1.2 TERMS OF REFERENCE

MA and Associates is an association of social development professionals, specializing in social impact assessments, auditing social impact deliverables, institutional development and facilitating transformation in the water and agricultural sector.

MA and Associates was appointed to facilitate and report on the Socio-economic Impact Assessment on behalf of Cape Environmental Assessment Practitioners (Cape EAPrac), the independent Environmental Assessment Practitioner (EAP) and GORRAWATER.

This report contains the findings of the SIA, undertaken as part of the EIA process as well as the Water Use Licence Application process.

The need to assess socio-economic issues as part of the EIA and Water Use Licensing processes is underpinned by the following key pieces of legislation:

- The Constitution of the Republic of South Africa
- The National Environmental Management Act

- The National Water Act.

Each contains rights, principles and objectives that inform the SIA Guidelines. The terms of reference for the SIA require:

- A description of the environment that may be affected by the activity
- The manner in which the environment may be affected by the proposed facility.
- A description and assessment of the potential social issues associated with the proposed facility.
- Identification of enhancement and mitigation aimed to maximize opportunities and avoid a/or reduce negative impacts.

1.3 PROJECT DESCRIPTION

1.3.1 The Applicant commenced listed activities in contravention of

- a) Section 24(f) of NEMA, without the necessary environmental authorization and is now applying for ex post facto approval via a Section 24G Application process.
- b) Section 32 of the NWA. The applicant is now applying for a water use licence for the authorisation of water uses to:
 - Section 21(b) The Storing of Water
 - Section 21(c) The Impeding and Diverting of a Water Course
 - Section 21(i) The Altering of the banks of a Water Course

1.3.2 The Applicant commenced with the construction of the Byevanger Dam, without the necessary water use authorisations, nor the environmental authorisations. The Johannes Gerhardus Nel Familietrust is now applying for the authorisation of water uses to:

- a) The Taking of Water Section 21(a)
- b) The Storing of Water Section 21(b)
- c) The Impeding and Diverting of a Water Course Section 21(c)
- d) The Altering of the banks of a Water Course Section 21(i)

1.3.3 Other technical specialist studies

The following other technical specialist studies were undertaken and the results were considered in determining the socio-economic impacts:

- a) A Freshwater Impact Assessment
- b) A Dam Safety Study for the Byevanger dam.

1.4 APPROACH TO THE STUDY

1.4.1 A definition of social impacts is:

“The consequences to human populations of any public or private actions (these include policies, programmes, plans and/or projects) that alter the ways in which people live, work, play, relate to one another, organise to meet their needs and generally live and cope as members of society. These impacts are felt at various levels, including individual level, family or household level, community, organisation or society level. Some social impacts are felt by the body as a physical reality, while other social impacts are perceptual or emotional.” (Vanclay, 2002).

The issue of social impacts is complicated by the way in which different people from different cultural, ethnic, religious, gender, and educational backgrounds etc view the world. This is referred to as the “social construct of reality”. The social construct of reality informs people’s worldview and the way in which they react to changes.

1.4.2 A definition of Social Impact Assessment is:

The process of analysing (predicting, evaluating and reflecting) and managing the intended and unintended consequences on the human environment of planned interventions (policies, programmes, plans and projects) and any social change processes invoked by those interventions so as to bring about a more sustainable and equitable biophysical and human environment (Vanclay, 2012).

Social impacts vary in both time and space. In terms of timing, all projects and policies go through a series of phases, usually starting with initial planning, followed by implementation (construction), operation and finally closure (decommissioning). The activities, and hence the type and duration of the social impacts associated with each of these phases are likely to differ. It is therefore essential for the SIA to

develop a timeline that represents the stages that the proposed project or intervention is expected to go through.

1.4.3 In the case where a listed activity has been commenced without authorisation (in terms of NEMA and/or the NWA) an assessment must include:

- An assessment of the nature, extent, duration and significance of the consequences for or impacts on the environment of the activity.
- Including the cumulative effects and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity.
- Identification of the relevant legislation and guidelines.
- A description of the need and desirability.
- A description of feasible and reasonable alternatives.
- A description of mitigation measures undertaken or to be undertaken in respect of the consequences for or impacts on the environment of the activity.
- An environmental management programme to be compiled and submitted.
- A description of any assumptions, uncertainties and gaps in knowledge.
- A reasoned opinion if the activity(ies) should be authorised or ceased and of any additional information and/or requirements. A standard section 24G Environmental Impact Assessment (EIA) report has been developed by the Department to assist in this regard and is available on the Departmental website below.

1.4.4 Based on the core values and principles the SIA process should seek to:

- Identify and assess the factors that contribute to the overall quality of life (social wellbeing) of people, not just their standard of living;
- Identify and assess the needs of vulnerable, at risk, groups and/or ethnic minorities or indigenous peoples;
- Identify and assess impact equity. Social assessments should seek to clearly identify which individuals, groups, organisations and communities stand to benefit from the proposed intervention and those that stand to be negatively affected. In

so doing the assessment must identify and emphasize vulnerability and underrepresented groups;

- Identify and assess the gender aspects of impacts;
- Identify and assess the fit of the proposed development in terms of key legislative, policy and planning requirements;
- Acknowledge and value the existence of spiritual worldviews and the existence of sacred places;
- Acknowledge and value cultural diversity and differing value systems between and within cultures;
- Recognise that social, economic and biophysical systems and impacts are inextricably interconnected. Social assessments therefore, need to identify and understand the impact pathways that are created when changes in one domain trigger impacts across other domains;
- Acknowledge and incorporate local knowledge and experience into the assessment process;
- Identify and assess developmental opportunities and not merely the mitigation of negative or unintended outcomes;
- Address poverty reduction and seek to improve the position of the worst-off members in society;
- Identify and assess second and higher order impacts and cumulative impacts;
- Form an integral part of the development and planning process and inform all stages of the process, from inception to decommissioning and closure; and
- Identify and assess alternatives.

The role of the SIA process should therefore include issues related to the empowerment of **local people, gender issues, minority groups, capacity building, equity, development and poverty reduction.**

1.4.5 Economic impacts

Economic impacts cannot be separated from social impacts, especially in a country like South Africa with high poverty levels and unemployment. Economic impacts therefore have to be assessed together with social impacts.

Economic impacts can be defined as the effects (positive or negative) on the level of economic activity in a given area(s). The net economic impact is usually measured

as the expansion or contraction of an area's economy, resulting from the changes in (i.e. opening, closing, expansion or contraction of) a facility, project or program. The net economic impact is ultimately informed by the exogenous change to a particularly defined geographical area/entity.

The following impacts can usually be quantified:

- Direct impact: The direct impacts are calculated from macro-economic aggregates occur as a direct result of the project. The initial impact on the regional economy for example is taken from the financial information and equals the value added generated by a specific scenario.
- Indirect impact: Indirect impacts are calculated from expenditure and the activities of suppliers through application in the economy.

1.4.6 Section 27(1) b-d of the NWA prescribes specific social impacts to be assessed:

27.(1)(b): the need to redress the results of past racial and gender discrimination;

27.(1)(c): efficient and beneficial use of water in the public interest;

27.(1)(d): the socio-economic impact -

27.(1)(d)(i): of the water use or uses if authorized; or

27.(1)(d)(ii): of the failure to authorize the water use or uses.

1.5 METHODOLOGY

1.5.1 Data collection and investigation:

- a) Meetings with EAP practitioner, Cape Eaprac
- b) Meetings with water specialist and dam safety engineer, Gorra Water
- c) Site visit to the Byevanger dam and the farm VanZylsdamme.
- d) Meetings with dr Magdalena Nel and mr Fanie Nel, trustees of the JG Nel Family Trust
- e) Telephone consultation with the owner of the farm Lofdal, on whose property part of the dam and dam wall is.
- f) Data collection re the agricultural environment
- g) Studied reports:
 - Fresh water report

- Dam safety report

h) Studied and assessed legal environment

1.5.2 Adherence to Section 27(1) b-d of NWA - Assisted JG Nel Family Trust with:

- Clarifying empowerment processes already in place.
- Finalizing consultation process with employees and identifying HDI beneficiaries
- Identifying steps to comply with legal requirements
- Developing and implement legal structures to address requirements
- Negotiating and developing contracts.

- Identifying mitigatory steps

1.5.3 Identified impacts and assessed cumulative impacts

1.6 SPECIALISTS DETAILS AND DECLARATION OF INDEPENDENCE

MA & Associates is an association of independent specialists with 20 years' experience in the field of community development and impact assessment. The lead specialist has more than 20 years of experience in community assessment and development, community conflict management, and 9 years of experience in facilitating empowerment and land redistribution in the agricultural sector, with specific focus on adherence to requirements in the NWA, Act 36 of 1998.

2. LEGAL AND INSTITUTIONAL FRAMEWORK

2.1 INTRODUCTION

2.2 THE NATIONAL WATER ACT (NWA), ACT 36 OF 1998

The focus of this investigation and report is on adherence to the prescriptions of Section 27(1) **b-d**:

27(1): In issuing a general authorization or license a responsible authority must take into account all relevant factors, including -

27.(1)(b): the need to redress the results of past racial and gender discrimination;

27.(1)(c): efficient and beneficial use of water in the public interest;

27.(1)(d): the socio-economic impact -

27.(1)(d)(i): of the water use or uses if authorized; or

27.(1)(d)(ii): of the failure to authorize the water use or uses.

2.3 TRANSFORMATION IN THE WATER AND AGRICULTURAL SECTOR

2.3.1 The National Water Resource strategy

The National Water Resource Strategy 2 (NWRS2) is the legal instrument to plan, develop and manage water resources in an integrated and sustainable manner. It gives effect to the National Water Act, Act 36 of 1998. The NWRS2 states that water underpins the socio-economic development of South Africa. It is critical to economic growth, social development and job creation.

Some of the core strategies of the NWRS2 are:

- Implementation of the Equity Policy
- Contributing to a just and equitable South Africa
- Ensuring water for equitable growth and development.

Equity in access for water resources is about ensuring the beneficial use of water to create jobs, contribute to poverty eradication and reduce inequality in South African society. Equity in access to benefits from water resources means that water will be allocated in such a way that it brings maximum benefit to all, directly and indirectly (NWRS2, pp22-23) The NWRS2 has a pro-poor outlook, focusing on the needs of the poor (NWRS2, p55):

The pro-poor focus of the NWRS-2 is based on several considerations:

- *The need to invest in appropriate infrastructure to serve the needs of the poor;*
- *The need for appropriate water resource strategies to be developed and implemented to assist poor communities to mobilize themselves so as to strengthen their voice in policy and implementation processes;*
- *The development and implementation of a pro-poor regulatory framework;*
- *The need for ongoing monitoring to establish what is working and what is not, as well as learning from effective practices in selected countries;*

- *Extensive engagement between policy makers, administrators, experts, civil society, grassroots movements, and the private sector.*

The equity protocol proposed in the NWRS-2 distinguishes between three concepts namely access to water services, direct access to water resources for productive uses as well as the concept of equity of access to the benefits from water resource use (by another user). Equity in access to water resources deals with the concept of direct access to water for productive purposes such as water for irrigating crops or water for a business or an industry. It is therefore critical to address equity in water allocation, to ensure the beneficial use of water to create jobs, contribute to poverty eradication, and to reduce the major inequality of the South African society. Equity in access to the benefits from water resource use means that water must be allocated in such a way that it brings maximum benefit to all, whether directly or indirectly.

2.3.2 National Principles for Water Allocation Reform

The DWS National Principles for Water Allocation Reform state:

- The primary focus of water allocation processes will be to redress past imbalances in water allocations to Historically Disadvantaged Individuals (HDI);
- The water allocation process must be supported by capacity development programmes that support the use of water to improve livelihoods and to support the productive and responsible use of water by all users. These capacity development programmes should also help HDIs and the poor to participate equitably in the process of informing the allocation of water;
- The water allocation process will contribute to BBBEE and gender equity by facilitating access by black- and women-owned enterprises to water.

Job creation is a key intervention in the war on poverty and water is a key strategic factor. Water provisioning to economic sectors like agriculture is about creating jobs which would otherwise not be viable or created. Transformation in the water sector links to agrarian reform: transforming the rural economy nationwide. The core component of agrarian reform is more equitable access to assets of land, water, markets, capital, technology and skill. Agrarian reform creates new opportunities for unleashing the productive potential of small scale farming and helps to overcome the inequities in the South African agricultural sector.

Black farmers need infrastructure development to obtain access to water resources, including the abstraction and storing of water. The Farmer Support and Development Programme (FSD) of the Department of Agriculture, Forestry and Fisheries is geared towards supporting black farmers through building capacity. The FSD programme provides extension, support and facilitation of training to emerging farmers.

The Strategic Plan for Smallholder Support (SPSS) of the Department of Agriculture, Forestry and Fisheries also seeks to fulfil the government's strategic outcome geared towards ensuring vibrant, equitable and sustainable rural communities and food security for all.

2.3.3 Breede-Gouritz Catchment Management Strategy

Strategy Area 2 of the Draft Breede-Gouritz Catchment Management Strategy (BGCMS) focuses on sharing equity and development in order to provide water for productive and social purposes within and outside the WMA. The Guiding Principles for the BGCMS include:

Recognition of the fact that water is the engine of development in the Breede Gouritz Catchment Management Area; an understanding that the future is uncertain and there is a need to build multi-faceted institutional, infrastructural and natural resilience to adapt to change; enabling opportunities to redress historical inequities in allocation and then urgently address potential physical, political, social and economic consequences through other means and involve stakeholders in water resources decision-making to ensure diversity, promote ownership and build capacity in the implementation of the strategy (p35-36).

Central to the BGCMS is the redressing of social inequities through water re-allocation to emerging black farmers.

The BGCMS further notes that more jobs should be created through agricultural development, based on effective land reform and the growth of irrigated agriculture. The BGCMS supports redress of historical social inequities and improved social livelihoods through allocation to emerging black farmers, and allocation that encourages the creation of more stable and higher income employment opportunities. The document states that significant steps need to be taken to increase the agricultural land percentage owned by Historically Disadvantaged

Individuals (HDI) from the current estimates of around 5% ownership to the five-year goal of 15% ownership, and ultimately the 30% of all agricultural land over a period of 15 years. The document set several Strategic Measures, of which the following are of particular importance for this WULA:

- Strategic Measures 2.4.2: The main objectives for water use allocation are to redress past imbalances in terms of both race and gender; effect sustainable and efficient water use; support socio-economic initiatives; and support government programmes that are aimed at poverty eradication, job creation, economic development and rural development. This will be done by identifying, developing and supporting HDI opportunities; and authorising water use applications. (p 68).
- Strategic Measure 2.7: To address climate change resilience, specifically building drought resilience. “Infrastructure resilience should include planning and building water-related infrastructure in a way that accounts for potential changes in climate. This would include planning and construction, as necessary” (p 73).

The Breede-Gouritz Water Management Area (BGWMA) produces high value agricultural export products for both local and international markets, contributing significantly to the country’s economy. The fact that the area in which these products are produced is located in a predominantly winter rainfall area means that water needs to be stored for summer use, making the cost of water very expensive.

There is therefore already high investment in water use efficiency. The implications are therefore that water allocated through reform processes should continue along the same vein of sustainable and beneficial use. In this respect all stakeholders, public and private sector, needs to play a role in supporting HDI agricultural activities.

2.4 NEMA

The National Environmental Management Act (NEMA, Act 107 of 1998, as amended), makes provision for the identification and assessment of activities that are potentially detrimental to the environment and which require authorisation from the competent authority (in this case, the provincial Department of Environmental Affairs and Development Planning) based on the findings of an Environmental Assessment. It also embraces the notion of sustainable development as contained in the Constitution of South Africa (Act 106 of 1996) in that everyone has the right:

- to an environment that is not harmful to their health or wellbeing; and
- to have the environment protected for the benefit of present and future generations through reasonable legislative and other measures.

The Act indicates that environmental management should aim to:

- Avoid, minimise or remedy disturbance of ecosystems and loss of biodiversity;
- Avoid degradation of the environment and avoid jeopardising ecosystem integrity;
- Pursue the best practicable environmental option by means of integrated environmental management;
- Protect the environment as the people's common heritage;
- Control and minimise environmental damage; and
- Pay specific attention to management and planning procedures pertaining to sensitive, vulnerable, highly dynamic or stressed ecosystems.

The Section 24G process requires that the following must be assessed in terms of the socio-economic impacts of the unlawful activity:

- The activity is not giving, has not given and will not give rise to any negative socio-economic impacts
- The activity is giving, has given, or could give rise to negative socio-economic impacts, but highly localised
- The activity is giving, has given, or could give rise to significant negative socio-economic and regionalized impacts
- The activity is resulting, has resulted or could result in wide-scale negative socio-economic impacts.

2.5 NATIONAL MILLENNIUM DEVELOPMENT GOALS AND NATIONAL POLICY DIRECTIVES

2.5.1 Millennium Declaration-September 2000 and The National Development Plan (NDP) - November 2011

The Millennium Development Goals were agreed upon in September 2000 when 189 countries, including South Africa, committed themselves to the Millennium Declaration. The following goals are especially relevant to this combined WULA:

a) Goal 1: Eradicate extreme poverty and hunger

- Reduce by half the proportion of people living on less than one US dollar a day.
- Reduce by half the proportion of people who suffer from hunger.

b) Goal 7: Ensure environmental sustainability

- Integrate the principles of sustainable development into country policies and programmes, and reverse the loss of environmental resources.
- Reduce by half the proportion of people without sustainable access to safe drinking water.
- Achieve significant improvement in lives of at least 100 million slum dwellers by 2020.

The NDP aims to attack the blight of poverty and exclusion, and at the same time nurture economic growth; creating a cycle of expanding opportunities, building capabilities, reducing poverty, involving communities in their own development, all leading to rising living standards. Everything in the plan is aimed at reducing poverty and inequality.

2.5.2 National Development Plan, Vision 2030

The National Development Plan (NDP) is a government plan aimed at eliminating poverty and reducing inequality by 2030. The Plan presents a long-term strategy to increase employment through faster economic growth, improvement in the quality of education, skills development and innovation, and building the capability of the state to play a developmental and transformative role. The Plan also focuses on upgrading public health facilities and producing more health professionals, as well as infrastructure development, financed through tariffs, public-private partnerships, taxes and loans, amongst other things.

The National Development Plan identifies the following specific national objectives for economic development that are relevant to the Eden region:

- The unemployment rate should fall from 24.9% in June 2012 to 14% by 2020 and 6% by 2030. This requires an additional 11 million jobs. Total employment should rise from 13 million to 24m.
- The proportion of adults working should increase from 41 to 61%.
- The proportion of adults in rural areas working should rise from 29 to 40%.

It envisions an inclusive rural economy with an additional 643 000 direct jobs and 326 000 indirect jobs in the agriculture, agro-processing and related sectors by 2030, maintaining a positive trade balance for primary and processed agricultural products.

The National Government has agreed on twelve outcomes. The following four outcomes are particularly important for this Assessment:

- Outcome 4 - Decent employment through inclusive growth;
- Outcome 5 - Skilled and capable workforce to support inclusive growth;
- Outcome 7 - Vibrant, equitable and sustainable rural communities and food security;
- Outcome 8 – Protection and enhancement of environmental and natural resources.

2.5.3 The Rural Industrial Development Strategy and the Integrated Sustainable Rural Development Strategy

The RIDS calls on all regions to build their industrial economies based on local competitive advantages and opportunities. It aims to bridge the first-second economy gap in South Africa based on the spatial development principles of the NSDP. Such a strategy focuses fundamentally on addressing the key obstacles to the functioning of the economy, primarily through infrastructural interventions which will better enable all regions to access markets and resources.

The purpose of the Integrated Sustainable Rural Development Strategy is to enhance the welfare of the poor that inhabit rural areas of South Africa.

2.6 LOCAL AUTHORITIES

2.6.1 Overview

The properties on which the transgressions were committed fall in the service/authority area of the Garden Route District Municipality and the Kannaland municipality.

The local authority, Kannaland municipality, includes the towns of Ladismith, Zoar, Calitcdorp, Van Wyksdorp and smaller rural settlements like Kerkplaas.

2.6.2 The Kannaland Municipality IDP

Van Zylsdamme falls within the geographical area of the Kannaland municipality. The small rural settlement Kerkplaas, where some of the farm's employees live, falls within this municipality. Most of the business and spending of the operating company, VANZYLSDAMME BOERDERY(PTY)LTD and its staff takes place in the town of Ladismith.

The Western Cape Government Socio-economic Profile 2018 for Kannaland Municipality stated that poverty levels increased between 2011 and 2015 according to Statistics South Africa in 2017 (p 20-27). The Kannaland Municipal area showed an increase in the population in the dependency ratio in the period 2011 to 2019 with a growth from 57,5% in 2011 to 60,16% in 2019. It has an unemployment level of 17,3%.

The agricultural sector (Agriculture, Forestry and Fishing) contributes 17% to the GDP according to the IDP. 34% of labour in the primary sector works in the agricultural sector. The the 2nd Review of the IDP 2017-2022 Kannaland Municipality points out that the Kannaland Municipal areas are dependent on the agricultural sector.

The Key Performance Area 4 of the IDP is:

To facilitate economic growth and social and community development. The relevant outcomes are:

- Reducing poverty
- Creating opportunities for growth and development in the rural area sector.

The IDP (p96-98) refers to the Integrated Rural Development Strategy of the National Government that states that rural areas over the world tend to have similar characteristics and the Kannaland Municipality area is characterised by these similar factors:

- Factor 2 is that agriculture is the dominant economic sector.
- Factor 5 is that people living in rural areas face a set of factors that pose major changes to development.

- Factor 7 is that the specific economic conditions in rural areas result in fewer opportunities than in non-rural locations. It further states that policies have consistently discriminated against agriculture through high levels of taxation and other macro-economic policies that have adversely affected agricultural performance and the rural tax base.

The Kannaland municipality as a rural municipality declares in the IDP(p99) that it will promote the stimulation of agricultural production with a view to contributing to food security and promoting the enhancement of rural livelihoods. It also states as a general priority issue that it focuses on water as a general priority issue, and states that agricultural water users had a low priority in the current environment, but that the severe impact of the recent drought brought the importance of irrigation to the forefront, not only to boost food production but also to provide vital support with respect to employment in the industry.

The IDP points out (p92) that economic pressures in the agricultural sector over the past few years forced farm workers to migrate to towns where in most cases these families became indigents. Growth in the sector recovered and peaked in 2014 before the drought started, having an impact from 2015 onwards. The Plan states that the severity of the current drought has re-emphasised the importance of a vibrant and sustainable agricultural sector.

The IDP (p101) highlights the importance of education and training of farm workers. It contributes to higher productivity, better communication and job satisfaction and improves the quality of human capital. The IDP states (p21) that the municipality will introduce improved processes in the agricultural sector to support inclusive participation in agricultural value chain and fostering an environment conducive to local and regional private sector investment.

2.6.3 The Garden Route District Municipality IDP

The Sustainable Development Goals in the Final Reviewed IDP 2018/9-2021/22 of the Garden Route District Municipality are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. It identifies the triple challenge of poverty, unemployment and inequality as challenges of the

district, with the poverty headcounts standing at 40.5%. Its Strategic Goal no 7 is to grow the district's economy.

The Gini coefficient for the Garden Route District Municipality was estimated to be 0.61 in 2016. South Africa's Gini coefficient ranges from about 0.660 to 0.696. The Gini coefficient is the measure of income inequality, ranging from 0 to 1. 0 is a perfectly equal society and a value of 1 represents a perfectly unequal society. The National Development Plan has set a target of reducing income inequality in South Africa from a Gini coefficient of 0.7 in 2010 to 0.6 by 2030.

The IDP identifies agriculture and agro-processing as key sectors with value-chain investment opportunities. Farming systems in the District Municipality are a mixture of irrigated crops and pastures, rain-fed crops and pastures / rangelands, extensive livestock and intensive livestock. It identifies drought as the no 1 socio-economic risk (p91).

The Eden Regional Economic Development Strategy states that it seeks to promote and lead to the optimal utilisation of the district's limited resource base in order to address respective development challenges and potential.

One of the strategic objectives is to promote sustainable agricultural practices. The Local Development Plan states that in the agriculture sector, lucerne and livestock farming, as well as ostrich farming, are the leading industries contributing to economic growth and employment creation. It states that unemployment in the region is at 11.4%, in terms of the quantity of the labour force in the agricultural sector, meaning the Garden Route Municipal area does not have a shortage in labourers. In terms of the quality of the labour force, the population has a literacy rate of 66.1%, who can be trained to obtain agricultural education and skills. The 33.9% who are not literate can be trained in labour-intensive work such as cutting and packaging of fruit and vegetables.

3. THE JG NEL FAMILY TRUST / VANZYLSDAMME BOERDERY(PTY)LTD / THE FARM VANZYLSDAMME

3.1 OVERVIEW

- The J G Nel Family Trust owns the farm Vanzylsdamme.
- The production company is Vanzylsdamme Boerdery (Pty)Ltd. (Attachment 2)
- The farm VanZylsdamme consists of 49 divisions, that makes up a total of 9951, 6954 hectares.
- The Trust rents 40 hectares of the farm to the neighbour, Mr Tua of the farm Lofdal, and the rest of the farm to the company, Vanzylsdamme Boerdery (Pty)Ltd. (Attachment 3)

The Trustees of the J G Nel Family Trust are Dr. Magdalena Nel, Mr Stefanus Nel and the independent Trustee is Mr. Ronaldo Groenewald. The Directors of the Vanzylsdamme Boerdery (Pty)Ltd are Dr Nel and Mr S Nel.

The Trustees and the Directors are persons who had voting rights before 1994.



*Pomegranates for export market

The main farming products are pomegranates, almonds, figs, grapes and onion seed produced on 84 hectares. Pomegranates and figs are exported and onion seed delivered to the company JW vd Westhuizen Saad for export. The company also started with the planting of plums for the export market.

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*Onion seed production



*Onion seed production

20ha are irrigated for animal feed. Sheep, goats and cattle walk on the dry veld areas.

The farm has 420 hectares listed with the Buffelsrivier Irrigation Scheme. The scheme provided the farm in the past with 7 900m³ water three times a year. That enabled the farm to produce about 3 200 tons of lucerne in the period of abundant water @ R3 000,00 per ton.

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*Lucerne production before the drought

No water has been available from the Buffelsrivier Scheme since the drought because the Floriskraal Dam has been empty for the last five (5) years. There is 276ha of the farm that cannot be farmed since 2015 due to the drought. The directors stated that the businesses income has halved since 2015.

3.2 THE UNAUTHORISED ACTIVITY BY THE TRUST

The Byevanger dam is an in-channel dam that was built without authorization. The Trustees/owners stated that the objective of building the dam was to:

- Replace the broken dam and the verified storage for that dam
- Create water security
- Compensate for the loss of water from the scheme
- Minimise the flood risk from the unnamed tributary valley in which the dam was built.

An original dam, the Rooikrans dam, existed close to the current dam. The Rooikrans dam was verified for 10000m³ (See Attachment 4). It was an off-channel dam and was situated in a lower position in the valley than the Byevanger dam (see Attachment 2-Map). It was also an older dam that was built before the Floriskraal dam was built (1957). Floods in the valley above the dam damaged the old dam wall and lands below the dam. In 2014 it was damaged in a flood to such an extent that it could not be repaired. This was not the first time the dam was damaged and had to be rebuilt. The owners stated that they decided after the last floods to move the dam wall upstream to get a better position for the wall and overflow of the dam in case of floods.

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The Trust commenced in 2018 with the construction of the Byevanger dam on Portion 3 of the Farm Buffelsfontein (C042-036-003 and abutting on Portion C042-042-066 in Quaternary J11J).

The following construction was executed:

- a) A Full Supply Volume of 149 621.62 m³. and a Full Supply Area of 3.1 ha.
- b) The dam wall height is 10.7 meters.
- c) The dam wall is approximately 208 meters long.

The full supply is 139 621 m³ more than what the previous dam was authorised for.

The neighbour mr ZJ Toua is the owner of the farm Lofpoort. He bought Section 66 of Voorbaat 42 on 1/3/2015. A dam servitude was registered at that stage on section 3 of the farm Buffelskloof 36 (Registered on 29/06/2010). The Byevanger dam is situated partly on 66/42 - mr Toua gave permission for the construction and water storage on his farm. (Attachment 5). Verbal confirmation was that the servitude entitles mr Toua to 1/3 of the water in the dam.

Mr Toua was of the opinion that the Byevanger dam is lawful because it replaced the previous dam. He was also of the opinion that the servitude will just be carried over and he will have water to irrigate the 40ha that he is currently renting from the Trust.

3.3 EMPLOYMENT AND DEVELOPMENT ON VANZYLSDAMME

3.3.1 Staff numbers

- a) The farm employs thirty-seven (37) permanent staff, of which twenty-one (21) are men and sixteen (16) women.
- b) Nineteen (19) of the permanent staff are youth
- c) Twenty (20) temporary staff is employed fulltime for 9 months of the year.
- d) Ten (10) of the temporary staff are youth

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Current Permanent Employees JG Nel Family Trust			
POPULATION GROUP	GENDER		YOUTH (under 35)
	Male	Female	
White	2	3	0
African Black	1	0	1
Coloured	18	13	18
TOTAL	21	16	19

Current Temporary Employees JG Nel Family Trust			
POPULATION GROUP	GENDER		YOUTH (under 35)
	Male	Female	
White	0	0	0
African Black			
Coloured	10	10	10
TOTAL	10	10	10



*Work teams

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e) VANZYLSHAMME BOERDERY(PTY)LTD calculate that they will employ 81 permanent and 40 temporary workers additionally should the farm receive an authorized water use licence for increased storage in the Byevanger dam. Significant more job opportunities will be created through:

- More permanent crops planted which are more labour intensive (plums, grapes and figs)
- Increased production of the pomegranates with better irrigation
- Lucerne production on lands that are now fallow
- More staff required for increased almond production and export
- More staff in packing(women)
- More staff required for the onion seed production and harvesting
- More temporary staff for planting and harvesting



* Labour intensive onion production

3.3.2 Women on the farm

Women will benefit most from water security, should the JG NEL FAMILY TRUST receive an authorized water use licence for increased storage in the Byevanger dam.

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*Women in agriculture



VANZYLSDAMME BOERDERY (PTY)LTD started in 1997 to put farming practices in place to give women permanent jobs. Women work in the pack stores, packing figs and pomegranates and drying figs for export. The pensioners (mostly women) on the farm supplement their pensions by picking up and shelling the almonds. Almonds are mostly sold within the country. With water security and increased production more women-and pensioners-will be employed.

The management team is currently made up of 9 employees of which 4 are women.



*Women in the packstore

3.3.3 Training and development

- a) The directors of VANZYLSDAMME BOERDERY (PTY)LTD have a strong developmental approach. Their aim is to eventually involve all or as many as possible staff in ongoing training and development.

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*Training on Vanzylsdamme

b) They believe the 5 staff members who are members of the Dam Workers Association must receive training in all the aspects of agriculture. These 5 persons are also part of the management team. They are exposed to in-service training for:

- Agricultural planning
- Project management
- Budgeting.

They are each given a specific project (eg starting a new land) and must implement their training in agricultural management on the ground. Four (4) of the management team are women.

c) Twenty-six (26 employees took part in formal training in 2018 and 2019. Nine (9) were women and seventeen (17) men:

ELSENBERG: CAPE INSTITUTE FOR AGRICULTURAL TRAINING					
NAME	I D NUMBER	FORKLIFT	TRACTOR OPERATOR	USE OF CHEMICALS	REFRESH COURSE
Lean R Speelman	9212155212089	x	x	x	x
Deon Swanepoel	7112075028080	x	x		x
Hendrik C rooi	6803055242086	x	x		x
Recardo C Jumar	9104065166085	x	x	x	x

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Hennisti H Joemaar	9406275261089	x	x		x
Dale C. Freeman	9107055220085	x	x	x	x
Jacobus P. Pekeur	8206275147085		x		x
Selvin Swart	7510125445081	x	x		
Paul R Scholls	9506155270082		x		
Denver Pekeur	8606176150080		x		

HEALTH AND SAFETY REPRESENTATIVE	
Name	ID
Jacoline Lehmann	7311220354082
Elaine Stassen	6610210035085
Samuel Adams	6706156109080
Selvin Swart	7510125445081
Wildlife Suppression	
Name	ID
Recardo Jumar	9104065166085
Phillip Pietersen	7701305029080
Denver Pekeur	8606176150080
Firefighting techniques	
Name	ID
Recardo Jumar	9104065166085
Phillip Pietersen	7701305029080
Denver Pekeur	8606176150080
Learner's Licences	
Name	ID
Lean Speelman	9212155212089
Paul Scholls	9506155270082
Denver Pekeur	8606176150080
Dale Freeman	9107055220085
Jacobus Pekeur	8206275147085
Recardo Jumar	9104065166085
Selvin Swart	7510125445081
Cedric Adams	8611125725081
Hennisty Joemaar	9406275261089

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CONSERVATION MANAGEMENT SERVICE	
Recognition and control of alien vegetation	
Name	
Daniel van Wyk	
Sampie Adams	
NEW HOPE TRAINING ORGANISATION	
Safety, Health and environmental Protection	
Name	
Jacoline Lehman	
Martha Visagie	
Gerty Jannewarie	
Selvin Swart	
Jason Jooste	
Elaine Stassen	
Rudolph Nel	
Jacobus Pekeur	
Albinn Carolus	
Hennisty Joemaar	
Basic Life Support and First Aid Procedures	
Name	
Albinn Carolus	
Ailster Gertse	
Jason Jooste	
Ramee Rooi	
Selvin Swart	
Carlin Volmink	
Martha Visagie	
Lewona Pekeur	
Marcelein Abelse	
Gerty Jannewarie	

3.3.4 Staff Accommodation

There are thirty-five (35) staff houses on VanZylsdamme. All the houses have running water and either flushing or VIP toilets. All the houses have electricity.



*Staff accommodation

One hundred and thirteen (113) adults and forty (40) children live on the farm. Thirty-two (32) are school going children. Twenty-one (21) are pensioners and nine (9) receive disability grants. Six (6) are female-headed households.

The remaining staff lives in nearby rural villages, like Kerkplaas and Voorbaat. Transport to work and back is provided by the farm.

3.3.5 Children on the farm

There are 40 children under 18 living on the farm. Eighteen (18) are school-going children. They go to school in Ladismith and use transport from the Dept of Education.

3.4 EMPOWERMENT AND LAND REDISTRIBUTION

3.4.1 Background

VanZylsdamme (Pty)Ltd has been involved in the empowerment of staff since 1997, when they took the first steps in of providing female temporary workers with permanent jobs and started training them.

There have been attempts since then to develop small farmers through the Dam Workers Association. One project involved vegetable cultivation on land provided by the trust. The Dept of Agriculture started training the members and provided tools but the project did not get off the ground.

VanZylsdamme (Pty)Ltd rents the land from the JG Nel Familie Trust and does not own any land. The trustees of the JG Nel Familie Trust stated that no land may be sold by any trustee. The Trust is willing to rent land to the Association if a viable option for empowerment is identified. VanZylsdamme (Pty)Ltd will assist the Association to become commercial farmers. It is also exploring the possibility of making shares in the new pomegranate pack shed available for the Association.

3.4.2 The Dam Workers Association

The Dam Worker Association is a Partnership with 5 Partners. All the Partners are employees on the farm and part of the management team. They are individuals who did not have voting rights in South Africa before 1994. The Partnership Agreement is currently a Draft Document, pending finalization of the Association as a legal entity. (Attachments 6, 7 and 8)

The Association's objectives are:

- a) To be a viable commercial food producer
- b) To set up and develop a value added industry
- c) To contribute to the Black farming sector in South Africa
- d) To mentor and train Black youth in agriculture with the aim of becoming commercial farmers
- e) To create job opportunities in the Kannaland municipal area
- f) To stimulate business in the informal business sector via supplying hawkers and others with products
- g) To provide learnerships for Black youth in farming

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- h) To carry on any other business within the opinion of the Business that may be deemed profitable or convenient to enhance the value of the Business
- i) To purchase or acquire goods, property or tools as deemed fit by the Partners in the interest of the Business.

3.4.3 The Partners in Dam Worker Association have the following shares in the Partnership, calculated as a percentage:

Name of Partner	Identity number	Share
Dail van Wyk	6106155249088	20%
Sameul Adams	6706156109080	20%
George Masango	6712175662083	20%
Cedric Adams	8611125725081	20%
Jacoline Lehmann	7311220354082	20%

The percentage shares per Partner determine the vote each Partner has in Partnership meetings and all other decisions. The shares are allocated to the Partners without cost.

The DRAFT Partnership Agreement (Attachment 6) states that:

- No shares in the Partnership may be sold within the first eight (8) years of acquiring them.
- Should a Partner wish to sell his/her shares after eight (8) years they must first be offered to the Partnership.
- Any Partner who leaves the Business before the end of the first eight (8) year period will submit his or her shares to the Business to be allocated to new Partners or handled in any manner seem fit by the Partnership.
- Partners received the shares free and will not receive any compensation for them in the first eight (8) years.

3.4.4 The DRAFT Agreement: JG Nel Familie Trust, VanZylsdamme (Pty)Ltd and the Dam Workers Association

A DRAFT Agreement (Attachment 9) between the 3 entities include the following:

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- a) VanZylsdamme (Pty)Ltd undertakes to initiate and facilitate the setup of an agricultural concern that can:
- Rent land from the JG Nel Familie Trust as identified by the Trust.
 - Plant and harvest lucerne or any other agricultural crop as decided from time to time between the parties
 - Obtain shares in the pomegranate and fig pack shed currently under construction.
- b) These undertakings will be dependent on the authorizing of the water use licences and approved environmental application by the relevant authorities for the Byevanger dam.
- c) Any agricultural activity will also be dependent on the availability of water in the Byevanger dam.
- d) The JG Nel Familie Trust undertakes to rent suitable agricultural land to Dam Workers Association at R1.00 per hectare per annum for the first 2 years. Rent will be determined after that period at the same rental price as VanZylsdamme and Lofpoort.
- e) VanZylsdamme (Pty)Ltd undertakes to be the mentoring and facilitating agent to assist Dam Workers Association in becoming a viable agricultural concern, through:
- Mentoring and training of the members of the Association in all the skills and knowledge required to operate a sustainable and profitable agricultural concern.
 - Providing an interest-free loan for 2 years for planting and harvest of lucerne or any other identified crop. This can include material for fencing, pipelines and pumps and pumping costs.
 - Lending equipment for the 1st 2 years
 - The terms for repayment of the loan must be agreed on between the parties before the loan agreement is signed.
- f) VanZylsdamme (Pty)Ltd undertakes to donate (**xxx decision on number of shares pending**) shares in the new packing sheds to the Association. The Association will be responsible for dividing dividends from shares according to its constitution.
- g) VanZylsdamme (Pty)Ltd also undertakes to after 3 years make further shares available to the Association to buy at a market related price from VanZylsdamme (Pty)Ltd.

- h) VanZylsdamme (Pty)Ltd will assist the Association with bookkeeping services for the 1st 5 years of its existence or till it makes a profit and can carry the costs themselves, whichever comes first.
- i) VanZylsdamme (Pty)Ltd will annually, through its chartered accountants make the annual financial statements of the packing sheds available to the Association.
- j) Business and agricultural support and mentorship for 5 years will take place through monthly meetings with the Association's shareholders. This will include adherence to all the statutory requirements of SARS and Department of Labour through the services of VanZylsdamme (Pty)Ltd accountants and lawyers as needed.
- k) VanZylsdamme (Pty)Ltd will assist the Association with obtaining financial assistance from other sectors - government and others - to buy more shares AND/OR expand their agricultural activities AND/OR buy agricultural land in other areas if possible.
- l) The Association undertakes to only construct industry-specific buildings and structures on rental property.
- m) No residential buildings will be erected on the rental property and no person will overnight on their property.
- n) VanZylsdamme (Pty)Ltd will carry the costs of the connection point to an Eskom supply point if required and the Association will carry the costs of their own electricity usage after 1 year of production.

SUMMARY

1. Authorizing the dam and increased storage

The farm will have the water security for:

- More permanent crops planted which are more labour intensive (plums, grapes and figs)
- Increased production of the pomegranates with better irrigation
- Lucerne production on lands that are now fallow
- More staff required for increased fruit and onion seed production and export(80 new permanent positions to be created)
- More temporary staff for planting and harvesting (40 new temporary positions)

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created.

It will mean job security for the current employees and their families living on the farm

The newly constituted HDI partnership will be able to rent land and plant cash crops. They will also be able to obtain shares in a packing facility.

2. Not authorizing the dam

- The farm will not have water security and will not be able to increase production.
- Should the drought continue productivity will decrease. If permanent crops (fruit trees) are lost it will have long term impact and take +5 years before new trees bear crops again.
- Decreased production will mean loss of export and might lead to permanent loss of overseas markets
- There will not be job security and probable job losses if the drought continuous
- No new job opportunities will be created in an area with high unemployment and high dependency in agriculture.

3. Authorising only the original 10 000,m3 storage from the Rooikrans dam

The farm will have some water security if the drought does not continue and there is run-off from the valley. Only two thirds of the 10 000m³ will be available for VanZylsdamme. One third (3 334m³) goes to Lofdal according to the servitude registered on the previous dam.

- It will not be able to plant more permanent crops which are more labour intensive (plums, grapes and figs)
- Current production of the pomegranates will probably stay the same

It will mean job security for the current employees and their families living on the farm

The newly constituted HDI partnership's agricultural activities will be dependant on the availability of water.

STATUS

1. The agricultural status after commencement of the unlawful activity is unchanged from before the commencement.
2. The employment status and conditions after commencement of the unlawful

activity is unchanged from before the commencement.

Future status:

- An authorised water use licence will ensure job security and increased employment.
- 80 permanent and 40 temporary employment positions will be created for VANZYLSDAMME(PTY)LTD
- Women will benefit most through employment opportunities, job security and housing.
- An HDI partnership will be able to become small farmers and take part in the south African economy

SOCIO-ECONOMIC IMPACTS if increased storage is authorized:

- Job opportunities created: 80 permanent posts and 40 temporary post
- Job security for current employees and security of livelihood for 153 people who live on the farm.
- Sustainable livelihoods fostered in an environment with high un-employment and poverty
- HDIs owning and developing agricultural enterprise
- Racial and gender imbalances addressed in benefiting from water use
- Transformation in the water and agricultural sector
- Social discrepancies in wealth and opportunities addressed

4. ECONOMIC IMPACTS OF THE ENTERPRISE AND THE UNAUTHORISED ACTIVITIES

4.1 OVERVIEW

The objective of examining economic impacts is to assist in the determination of whether the project will enhance net societal welfare. This means analysis of

impacts on different sectors and groups of society. It involves considering the efficiency, equity and sustainability of the project (Van Zyl et al, 2005)

Efficiency, equity and sustainability combine to impact on societal welfare and trade-offs need to be made between these issues, taking cognizance of opportunity costs (the net benefit yielded by the next best alternative).

Assessing social and economic impacts are interwoven and many economic aspects have already been addressed earlier in this report. This is not a full Economic Impact Assessment but it addresses necessary economic impacts.

4.2 DIRECT ECONOMIC IMPACT

4.2.1 VANZYLSDAMME (PTY)LTD's actual spending p/a in the local economy

VANZYLSDAMME BOERDERY (PTY)LTD spent R 6 059 323 on production costs and R 3 761 871 on capital expenses in the financial year 2018-2019:

The production costs for the current 450 ha were made up of:

Wages	2 127 002
Salaries	414 000
Training	20 946
Protective clothing	26 376
Packing material	456 929
Fertilizer	173 008
Fuel	680 617
Crop protection	153 568
Repair costs	461 375
Electricity	392 589
Transport	202 470
Rent	680 617
Commissions	127 294
Property taxes	142 532
TOTAL	6 059 323

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This TOTAL spending (production and capital) of **R9 821 194** happened primarily in Ladismith in the Kannaland municipality.

It is not possible to estimate at this point in time what the Association will contribute to the economy. It will depend on:

- The final Agreement
- Implementation of the Agreement
- The end of the drought (there must be water to store)
- An authorized licence for the JG Nel Familie Trust for the Byevanger dam.

4.2.2 Spending on the unlawful activity

JG NEL FAMILY TRUST provided the following financial figures for spending on the unlawful activity. These are expenses above the usual annual production and capital costs:

	Wages	Machines	Fuel	Transport	Pipes	Technical Measure	Engineer	Total
Con- struction	165000	839500	214164	12500	46500	10925	25430	1314019
Future	24500	120000	25000					169500

4.3 INDIRECT ECONOMIC IMPACT

4.3.1 Indirect economic impact: Contribution to the economy from the agricultural multiplier effect

The multiplier analysis shows the impact of changes in final demand on production, income and value added to the entire economy. The multiplier is a ratio that describes the change in total spending or income to the initial change in spending that brings it about. The initial recipients of the money spent will spend some of what they receive. This, in turn, will generate additional rounds of receipts and spending throughout the economy.

The inter-dependence of sectoral linkages shows connectedness of the sectors of the economy. The benefits of the linkages reveal the quality that growth in one

sector could contribute to another sector as well as overall growth (Suryahadi et al., 2006).

The multiplier effect for agriculture in developing countries is between 4 and 6 times the original amount spent. (www.agropedia.iitk.in/content/agricultural-multiplier-effect)

Phoofolo (Phoofolo, 2018, p88-89) concluded the following output multipliers in South Africa for the products delivered by VANZYLSDAMME BOERDERY (Pty)Ltd:

- Cattle 2.44
- Sheep 2.13
- Grapes 2.6
- Other fruit 2.57
- Animal feeding 1.9

Average: 2.32

An average **output multiplier factor of 2.32** relevant for this assessment (based on the produce of Vanzylsdamme (Pty)Ltd) means that the farm contributed on average **R22 785 170** the local economy from production and capital expenses spent in the local economy.

R2 541 002 is wages and salaries that is spent directly in the Ladismith economy.

VanZylsdamme export their pomegranates and figs, earning on average R8 million per annum in foreign valuta. A successful agricultural sector **attracts foreign investment**, as has been the case in the wine industry over the past decade, and is increasingly the case in the fruit industry. It has been estimated that around 20% of the investment in the Western Cape wine industry comes from outside South Africa. The fruit exported by Vanzylsdamme is a growing market with the potential of opening up more markets for other products.

Production from all sectors on the farm decreased the past 4 years with 50% due to the drought.

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*Figs for export

4.3.2 An authorized licence to store more water

An authorized licence to store more water can bring VANZYLSDAMME BOERDERY (PTY)LTD again to full production and expansion. An increase of 25% (functioning at 75%) will mean that **R2 455 298** more will be spend in the economy.

The farm will increase spending on wages if 80 permanent and 40 temporary workers are employed. They stated that their extra spending will be about R3 840 000 on permanent staff wages and R574 000 on temporary works per annum.

ESTIMATED INCREASED EXPENDITURE: R6 869 298.00

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With a multiplier factor of 2.32 the added expenditure in the regional economy contributed by VANZYLSHAMME BOERDERY (PTY)LTD to the regional economy will be **R15 936 771** per annum.

An estimated R169 500 will also have to be spent on completing the dam.

SUMMARY

1. Economic impacts assist with determining if a project will enhance net societal welfare for different sectors and groups of society.
2. This TOTAL spending (production and capital) of VANZYLSHAMME BOERDERY (PTY)LTD **R9 821 194** happened primarily in Ladismith in the Kannaland municipality.
3. With an average output multiplier factor of 2.32) the farm contributed on average **R22 785 170** pa to the local economy from production and capital expenses.
4. An authorized licence to store more water can bring VANZYLSHAMME BOERDERY (PTY)LTD again to full production and expansion. The estimated increased expenditure will be **R6 869 298.0**. It will multiply to an added **R15 936 771** turned over in the local economy.

STATUS

The economic status after commencement of the unlawful activity is changed from before the commencement. R1 314019 was spent in the regional economy to build the dam.

ECONOMIC IMPACTS if increased storage is authorized:

- Increased spending of estimated **R6 869 298.0**, probably resulting in **R15 936 771** turned over in the local economy.
- Job opportunities created: 80 permanent posts and 40 temporary post
- New HDI- owned agricultural enterprise to be set up
- Shares owned by HDI's in agricultural business
- Social discrepancies in wealth and opportunities addressed
- Local economic growth stimulated through the increased production.

5. THE OVERALL NEED AND DESIRABILITY OF THE UNAUTHORISED ACTIVITIES

5.1 WATER SECURITY ON VANZYLSDAMME

There is broad scientific consensus that the global temperature is increasing and these changes are likely to impact on the suitability of growing conditions. It is also expected that the frequency and severity of extreme floods and droughts will increase. This will be a challenge to the agricultural sector that needs to deal with increased water requirements at different times of the year. Agriculture is being pressurised by economic, climatic and social factors. These pressures will result in shifts in the nature and possibly the extent of agricultural production over the next couple of decades (Breede Gourits Catchment Management Strategy, p 29).

Strategic Measure 2.7 of the BGCMS states that strategies must be adopted to reflect climate change aspects and that drought resilience must be built or developed (p 73).

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SANBI (The South African National Biodiversity Institute) states in its Factsheet 4 of 7, *CLIMATE CHANGE AND THE AGRICULTURE, Climate and Impacts Factsheet Series*, that increases of about 15–30% in irrigation demand are plausible under a hotter and drier scenario, presenting substantial risk for the agricultural sector, and with important cross-sectoral implications due to the high proportion of surface water allocated to agriculture in South Africa.

The canal (the no 5 canal) that brought water from the Buffelsrivier Irrigation Scheme washed away in the floods in 2014. It could not be rebuilt due to the cost involved for the building and the required impact study. The owners decided that the only option was to pump water when available, from boreholes and other sources on the farm, to the new dam. They will also harvest the occasional flow/floods from the valley above the dam.

The main purpose of the dam is water security. An authorised Water Use Licence for storing in this dam will mean the VANZYLSDAMM BOERDERY (PTY)LTD company will be able to:

- Plant more permanent crops, such as plums, for which there is an overseas market
- Expand the pomegranate, fig and grape yield with more irrigation
- Start the lucerne production again
- Enable the HDI partners to plant lucerne which is a cash crop
- Expand the package side of the business and create more value for the HDI partners
- Create a substantial number of permanent and temporary jobs

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*Pomegranates with lower yield in drought

It can be concluded that there was a need for water security through the expansion of the Byevanger dam

5.2 CREATION OF JOB OPPORTUNITIES AND PREVENTION OF JOB LOSSES

5.2.1 Creation of income and job opportunities

Water security (an authorized water use licence for storage in the Byevanger dam) will mean that VANZYLSDAMM BOERDERY (PTY)LTD will be able to plant approximately 276 hectares with lucerne or permanent crops like plums. That land yielded 3200 tons@R3000 per ton in the past: R9.6 million. An increase in fruit production will also contribute to increased foreign income.

The Association will be able to kick start their agricultural business by planting on land they will rent from the Trust. Shares in the expanded packing facility will bring dividends for the HDI shareholders, more job opportunities improved livelihoods.

This will result in 60-80 more permanent positions and 30-40 temporary workers being employed –mostly for 9 months in the year and prevent job losses. VANZYLSDAMME BOERDERY (PTY)LTD has so far managed to stave off job losses but that may change as the drought deepens and the cannot save water in the dam.

Phoofolo stated that the impact of agricultural sectors is outstanding in generating labour income for unskilled and low skilled workers (workers with primary school or

less). In addition, the agricultural sector excels in generating high income and hence improving the livelihoods of the low income households. The implication from these results is that growth in most agricultural sectors will therefore assist in eradicating poverty, creating jobs and improving income distribution better than most non-agricultural sectors. (Pfoofolo p110). The positive impact on livelihoods will definitely be seen by the increased income of the 5 Association members and the subsequent new employees of VANZYLSDAMM BOERDERY (PTY)LTD. It will mean a difference in livelihood from living just above the breadline, to being able to afford better schooling and opportunities for children, better housing, better transport etc.

The Minister of Agriculture, Forestry and Fisheries, Minister Zokwana pointed out in his budget vote speech earlier in 2017 that the government's target is an additional 2250 black commercial farmers by 2022. (www.businesslive.co.za/).

President Ramaphosa stated in the State of the Nation Address on 16 February 2018 that poverty levels rose in 2015, unemployment has gone up and inequality has persisted. The economy has not grown at the pace needed to create enough jobs or lift people out of poverty (www.Timeslive/politics/2018-02-16). He also stated that agriculture presents one of the greatest opportunities to significantly grow the economy and create jobs. It made the largest contribution, by a significant margin, to the improved growth of our economy in the second and third quarters of 2017. He also referred to the enormous economic potential of agriculture.

SA News quoted president Ramaphosa on 20 June 2019 when he again emphasized the urgency of job creation on 20 June 2019. He stressed the goals of tackling poverty, inequality and unemployment. (www.sanews.gov.za)

5.2.2 Prevention of job losses

The Western Cape Economic Opportunities Department announced In December 2018:

- a) 30 000 jobs were lost in the Western Cape agricultural sector due to the drought.
- b) The sector economy saw a R5.9 billion drop in gross value. That is 25% of the value of agricultural production. (Downloaded from www.ewn.co.za).

Decreasing production brings about a decrease in production spending and less being spent in the local economy. Less money that will circulate in the local economy, affects the whole community, including:

- Individuals and families
- Secure housing
- Small business owners
- Suppliers of agricultural goods
- The municipality
- Schools and crèches
- Churches and NGOs

VANZYLSDAMME BOERDERY (PTY)LTD has so far managed to stave off job losses-also through the unlawful building of the dam. The foreseen loss of job opportunities in a drier climate in the future will have a serious impact on not only the livelihoods of employees who will lose their jobs and income but also the livelihoods of their families. One employee often supports 4-8 dependants. Just 5 persons who lose their income can affect as many as 40 persons directly in terms of livelihood and have an exponential impact on the local economy. In an area with high unemployment it can mean that such families may never recover from the poverty trap.

It can be concluded that there was and is a need for:

- **Prevention of job losses**
- **Employment creation, especially for unskilled and semi-skilled persons**
- **Employment creation for women**
- **Employment for Historically Disadvantaged Individuals. Most or all farm labourers are HDIs and will benefit from sustainability in the agricultural sector.**
- **Participation in agriculture enterprises by HDI's**
- **Regional economic growth**

5.2.3 Sustainable livelihoods

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The United Kingdom's Department for International Development (DFID) developed a sustainable livelihood framework (SLF). This concept and framework have been adapted by many organizations to suit a variety of contexts, issues, priorities and applications and it is one of the most widely used frameworks globally. The framework is grounded in core principles which are **poverty-focused and people-centred**. It shifts attention from only livelihood outputs to a people-orientated approach (De Kock, p 38). In this approach one must attempt to establish longer-term commitments for all livelihoods.

The JG NEL FAMILY TRUST/VANZYLSDAMM BOERDERY (PTY)LTD/DAM WORKERS ASSOCIATION partnership is an example of potential economic empowerment and transformation, benefiting members of the lowest income group, farm workers.

The full transformative impact of the partnership, helping them to become fully fledged commercial Black farmers, cannot be measured with any scoring system. The national urgency for transformation in land ownership and equity in water use cannot be disputed. It links up with the national goals of transformation, economic growth and job creation.

Lack of land ownership and adequate support is one of the biggest challenges faced by emerging farmers. Emerging farmers often have basic agricultural skills or have received some agricultural training but most are lacking the capacities(material and advanced skills) required to manage a farm as a business, resulting in the deterioration of the assets (infrastructure, land, stock etc.) and thus threatening food security. Agricultural mentorship that goes beyond mere supervision and extends over several years is urgently needed in the agricultural field. VANZYLSDAMM BOERDERY (PTY)LTD is already mentoring the members of the Association in successful agricultural practices.

It can be concluded that there was and is a need for:

- **Sustainable employment opportunities**
- **Land redistribution and transformation in the water and agricultural sector**

5.3 INTERESTED AND AFFECTED PARTIES

The public participation process has not yet commenced.

The lack of detailed information about the impact of the Byevanger dam on downstream users is a limitation in this study. This assessment will have to be upgraded as soon as Interested and affected have registered and information can be obtained from them.

Previous experience in similar situation showed that the lack of communication to neighbours and down - stream users created distrust and the potential for conflict, impacting the fabric of the local community. Water is a scarce resource and essential for sustainable livelihoods. Needs conflicts can easily develop when livelihoods are threatened. More so when there is a lack of communication. The absence of transparency and trustworthy information create suspicion, conjecture and spreading of false information.

This report will be updated as soon as downstream users as Interested and Affected parties have been identified and assessed

6. REPORTS FROM OTHER PROFESSIONALS

The following impacts relevant to the socio-economic situation was mentioned by other professionals:

6.1 FRESH WATER SYSTEMS REPORT

Dr. Jackie Dabrowski of Confluent Environmental (Pty) Ltd commented that storage in the dam is currently limited to 23 800 m³ according to Section 32 of the National Water Act (Existing Lawful Use). Given the small outlet pipe at the base of the dam wall, it is expected that floodwaters will fill the dam above this volume. The dam has been constructed on a network of watercourses that flow into the Groot River which is categorised as a Fish Corridor and cater for large migratory threatened and near threatened fish species that require connectivity between habitats, usually between the main stem and tributary habitats.(p13)

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She also quotes the Breede-Gouritz's recently determined Resource Quality Objectives (RQOs) for the Groot River. In terms of quantity, the RQO states that "flows shall be sufficient to maintain the Groot River in an ecological condition that is equal to or better than the ecological condition in summer 2014 (Category D)."

She found in her site assessment of the watercourse upstream and downstream of the dam that upstream was a lot less impacted than downstream.

She points out that the volume of the Byevanger Dam is approximately 6 times greater than the existing water allocation, which if authorised, will no longer enter the river. This impact has already been identified in the RQOs for the site which specifically state that flows must be sufficient to ensure the ecological condition of the Groot River doesn't decline from its current state (p32). She states: "It is unlikely that the increased storage and abstraction provided by the Byevanger Dam would be solely responsible for a decline in the condition of the Groot River. However, if every land-owner in the SQR opted to comparatively increase the capacity of their impoundments without authorisation, the cumulative impact on the ecology of the Groot River would be significant.(p32)

She found that the presence of the dam will dramatically alter sediment transport regimes through retention of sediment which may exacerbate erosion downstream and the natural course of the river downstream of the dam will be altered by the dam as the spillway is on the western side of the dam wall, but the original watercourse was towards the east. As an instream dam, the Byevanger Dam alters the hydrological regime from intermittent flowing water which mostly reached the Groot River (as the previous dam was small and susceptible to damage), to long periods of lentic (standing) flow within the impoundment as water would be held back from the Groot River.

A potentially positive impact of standing water in the dam is the additional habitat available to fauna such as frogs and birds.

The Fresh Water Systems Report will be included by the EIA specialist. it is not included as an Attachment to this report. The specialist make several recommendations, dealing with preservation of the watercourse, construction

management and fauna and flora impacted by the dam. Special note is taken of the following mitigation measures:

- Review of layout plans to ensure that physical connectivity with the original watercourse and the Groot River is maintained. This must be achieved through aligning outlets with the original watercourse.
- Alignment between the original watercourse leading to the Groot River and outlets from the dam should be prioritised in case of heavy rainfall requiring the discharge of water exceeding the lawful allocation.
- The next priority should be to establish sediment traps or stabilisation on areas prone to erosion such as the downstream side of the dam embankment, area below the spillway (once alignment has been planned), and the access road. Allowance must be made to clear sediment from the traps if erosion occurs during the construction period. Traps should be implemented immediately as construction has not concluded at the site, and there are many exposed areas susceptible to erosion if it rains heavily.
- Appoint a hydrologist to determine the Mean Annual Runoff from the Byevanger Dam catchment and how this relates to the requested water allocation and full supply level of the dam. This is a first and necessary step to understand the implications of constructing the dam on the flows that can be expected to reach the Groot River.
- Operating rules must consider the release of water that is sensitive to ecological requirements downstream (informed by the above study). The success of this measure is also dependent on restoring the alignment of the original watercourse with the Groot River.

Special note is taken of her observation that the volume of the Byevanger Dam is approximately 6 times greater than the existing water allocation, which if authorised, will no longer enter the river. This impact has already been identified in the RQOs for the site which specifically state that flows must be sufficient to ensure the ecological condition of the Groot River doesn't decline from its current state.(p32) She states: "It is unlikely that the increased storage and abstraction provided by the Byevanger Dam would be solely responsible for a decline in the condition of the Groot River. However, if every land-owner in the SQR opted to comparatively increase the capacity of their

impoundments without authorisation, the cumulative impact on the ecology of the Groot River would be significant (p32).

6.2 DAM SAFETY REPORT

6.2.1 The Dam Safety Study for the Byevanger Dam was initiated and the dam is registered and classified as a Category 2 medium sized dam, with a significant risk. The dam safety reference number is listed at the Dam Safety Office as 12/2/J331/50.

6.2.2 Attachment 10 contains the Dam Safety Evaluation Report with 7 recommendations Important to take note of in this assessment is the recommendation to ensure that the dam stores no water to comply with current WULA and section 24G requirements.

7. ADDRESSING THE REQUIREMENTS OF SECTION 27(1) b-d OF THE NWA, ACT 36 OF 1998

The requirements of Section 27(1) **b-d** of the National Water Act are:

27(1): In issuing a general authorization or license a responsible authority must take into account all relevant factors, including -

27.(1)(b): the need to redress the results of past racial and gender discrimination;

27.(1)(c): efficient and beneficial use of water in the public interest;

27.(1)(d): the socio-economic impact -

27.(1)(d)(i): of the water use or uses if authorized; or

27.(1)(d)(ii): of the failure to authorize the water use or uses.

Water Allocation Reform (WAR) describes a range of processes aimed at equitable, productive, and sustainable allocation of water. The focus is on activities to promote applications that address race and gender reform, as well as those that support the establishment of viable water using enterprises. WAR includes actions to facilitate

the authorisation of those water uses that represent the most beneficial use of water resources in the public interest. The strategic intent of WAR is ultimately to:

- Redress past imbalances in terms of both race and gender;
- Effect sustainable and efficient water use;
- Support socio-economic initiatives; and
- Support government programmes that are aimed at poverty eradication, job creation, economic development and rural development.

The applicant JG NEL FAMILY TRUST needs to address the national goals of land redistribution, reform in the water and agricultural sector, economic growth, poverty alleviation, job creation and in particular have to adhere to the requirements of Section 27(1) (b), (c) and (d) of the NWA, through this licence application:

(b) The need to redress the results of past racial and gender discrimination;

(c) Efficient and beneficial use of water in the public interest;

(d) The socio-economic impact if:

- the water uses are authorised
- the water uses are not authorised

7.1 REDRESSING RACIAL AND GENDER IMBALANCES SECTION 27(1) B

7.1.1 Ownership

This WULA is for the farms Vanzylsdamme owned by the JG Nel Family Trust (JG NEL FAMILY TRUST). The trustees are persons who had voting rights in South Africa before 1994.

7.1.2 Race and Gender Imbalances

JG NEL FAMILY TRUST partially addresses the imbalances of the past in terms of ownership and gender. It does so by creating the empowering partnership with Dam Workers Association to ensure transformation and sustainable commercial farming by Black farmers.

Gender imbalances are addressed by:

- An HDI woman is member of the Association and will own 20% of the shares of the partnership.

- Sixteen(16) out of 37 permanent employees are women and 50% of temporary employees are women. Four of the 9 managers are women and women are fully represented in the training courses. In a rural area with high unemployment and a prevalence of low skill workers every job opportunity contributes to generating high income and hence improving the livelihoods of the low income households.
- The female partners and family members of male employees share accommodation of in 35 houses with electricity and running water on the farm. Six of them are female headed households. Free good quality accommodation brings many benefits to women: Saving in rent, saving in costs related to water and municipal rates, opportunities for food gardens, safer environment for raising children.

7.2 EFFICIENT AND BENEFICIAL USE OF WATER IN THE PUBLIC INTEREST SECTION 27(1) C

7.2.1 Meeting transformational goals

Approving this WULA will partially address the goals of transformation in the agricultural and water sector as well as rural transformation. JG NEL FAMILY TRUST will help develop the Association as an agricultural concern. The African Farmers Association of South Africa sums it up best by stating their strategic aim to commercialise the developing agricultural sector and ensure meaningful participation of black individuals within the mainstream commercial agribusiness sector, hence ensuring the long-term sustainability of the agricultural sector in South Africa.

One of the goals of the National Development Plan, Vision 2030 is that the proportion of adults in rural areas working should rise from 29 to 40%. It envisions an inclusive rural economy with an additional 643 000 direct jobs and 326 000 indirect jobs in the agriculture, agro-processing and related sectors by 2030, maintaining a positive trade balance for primary and processed agricultural products.

The NWRS2 states that water underpins the socio-economic development of South Africa. It is critical to economic growth, social development and job creation. Equity in access for water resources is about ensuring the beneficial use of water to create jobs, contribute to poverty eradication and reduce inequality in South African society. Equity in access to benefits from water resources means that water will be allocated

in such a way that it brings maximum benefit to all, directly and indirectly (NWRS2, pp22-23).

The DWS National Principles for Water Allocation Reform states that job creation is a key intervention in the war on poverty and water is a key strategic factor. Water provisioning to economic sectors like agriculture is about creating jobs which would otherwise not be viable or created.

The Guiding Principles for the Breede-Gouritz Catchment Management Strategy include:

Recognition of the fact that water is the engine of development in the Breede Gouritz Catchment Management Area; an understanding that the future is uncertain and there is a need to build multi-faceted institutional, infrastructural and natural resilience to adapt to change; enabling opportunities to redress historical inequities in allocation and then urgently address potential physical, political, social and economic consequences through other means and involve stakeholders in water resources decision-making to ensure diversity, promote ownership and build capacity in the implementation of the strategy (p35-36).

Water security for the JG NEL FAMILY TRUST will bring direct and indirect benefits to South Africans who did not have voting rights pre 1994. The interrelatedness between JG NEL FAMILY TRUST/ VAN ZYLSDAMME BOERDERY (PTY) LTD and Association will contribute to poverty eradication, leading to more jobs and the development of more black farmers. A licence to store surplus water will ensure the safety of current jobs in uncertain climate crisis times like these.

In this WULA the water storage applied for is for the farm owned by persons who had voting rights before 1994. No transformation of land ownership will take place. Black persons will get the opportunity to rent land, start a sustainable agricultural business and own shares in a profitable section of the current enterprise on the farm. The TRUST do not sell or distribute any land owned by it. It set up other Trusts and the production company to safeguard the land. It is motivated to facilitate and mentor a sustainable Black business that can later buy other land to expand itself.

7.2.2 Meeting local strategic objectives

- a) The Sustainable Development Goals in the Final Reviewed IDP 2018/9-2021/22 of the Garden Route District Municipality are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. It identifies the triple challenge of poverty, unemployment and inequality as challenges of the district, with the poverty headcounts standing at 40.5%. One of the strategic objectives is to promote sustainable agricultural practices. The Local Development Plan states that the agriculture sector contributes to economic growth and employment creation.
- b) The Kannaland municipality as a rural municipality declares in the IDP that it will promote the stimulation of agricultural production with a view to contributing to food security and promoting the enhancement of rural livelihoods. It also states as a general priority issue that it focuses on water as a general priority issue, and states that agricultural water users had a low priority in the current environment, but that the severe impact of the recent drought brought the importance of irrigation to the forefront, not only to boost food production but also to provide vital support with respect to employment in the industry.

The IDP points out that economic pressures in the agricultural sector over the past few years forced farm workers to migrate to towns where in most cases these families became indigents. The severity of the current drought has re-emphasised the importance of a vibrant and sustainable agricultural sector.

It highlights the importance of education and training of farm workers.

An authorised WULA for the JG NEL FAMILY TRUST will lead to job security, sustainable rural livelihoods and increased spending in the local economy.

7.2.3 Rural development in terms of food security and agrarian reform:

Land redistribution and rural reform is an emotive issue in South Africa. This WULA aligns with the purpose of the Integrated Sustainable Rural Development Strategy to enhance the welfare of the poor that inhabit rural areas of South Africa, catalysing the transformation of local rural areas into economically viable communities, to facilitate positive change and rural sustainable development.

It also aligns with the Millennium Goals, National Policy Directives, the NWA and the National Water Resource Strategy 2. An authorized WULA will align with the national transformational goals.

Rural development is linked to land and agrarian reform and food security. The production of agricultural products addresses food security on a regional level. The employment opportunities created also ensures food security for those families who earn income and have the opportunities to acquire skills that can lead to permanent and higher income.

A successful agricultural sector enhances the rural-urban balance in economic activity as well as population distribution of a country. Agriculture often provides safety nets for those who do not have access to formal welfare systems or to basic services such as clean water, electricity, schools, *etc.* Farm dwellers and farm workers who live on farms and in agri-villages are provided with services that would otherwise have to be provided by local government, for example transport to school, water and sanitation provision, electrical infra structure *etc.* VanZylsdamme provides accommodation for in 35 houses for 145 persons . This stands in stark contrast with the national trend of moving farm workers off the farms and into the towns, where their housing needs and water use become the responsibility of local authorities.

7.2.4 Social discrepancies in wealth and opportunities addressed

The legacy of apartheid led to large discrepancies in education and training, with the resultant struggle for opportunities to acquire wealth, even basic wealth and basic living standards. JG NEL FAMILY TRUST set up an empowerment company and will empower an HDI agricultural business. It will transfer skills to ensure it develops in a sustainable business.

The HDI agricultural business ownership will addresses the wealth gap and give opportunities to persons who were disadvantaged in the previous regime. The social multiplier effect will only become really visible in the next generation when those adults will show the benefits from their parents' better income and opportunities. The female partner in the Association and the 4 female mangers on the farm are

examples of HDI women taking part in the world of business and agriculture, while HDI women were the most marginalised group during the apartheid era.

7.2.5 Eradication of extreme poverty and hunger:

It is important to specifically highlight the use of water in the war on poverty and unemployment. This WULA will ensure water use is of beneficial use in the public interest.

a) Job opportunities that will address unemployment and create sustainable livelihoods:

Job creation is a key intervention in the war on poverty and water is a key strategic factor. Water provisioning to economic sectors like agriculture is about creating jobs which would otherwise not be viable or created. Authorising the increased storage of water will contribute to labour intensive activities, creating new job opportunities and advance agricultural skills development for HDIs. Apart from its direct benefits, **the creation of employment** in rural areas has additional positive effects, such as enhanced social security, development of rural areas, lower rates of crime etc.

The unemployment situation in the region is dire. Although a portion of the labour force consists of temporary workers they are ensured of regular employment in areas where there are very few job opportunities. They can plan around an ensured income - the jobs create sustainable livelihoods. Water security in drought times is a form of insurance for these workers –their jobs will not be on the line. The agricultural business on VanZylsdamme is labour intensive and a secure provision of water will ensure more employment opportunities.

b) Local economic growth stimulated:

An authorised WULA for JG NEL FAMILY TRUST will enable them to increase their storage capacity. By doing so they will:

- Have improved drought resilience and water security
- Be able to maintain irrigation and production
- Provide job security for current employees and temporary workers
- Increase spending in the local economy.
- Increase the sustainability and production potential of their HDI partners

VANZYLSDAMME BOERDERY(PTY)LTD (the operational arm of the business) spent **R9 821 194** in Ladismith in the Kannaland municipality. It turned over on average **R22 785 170** pa to the local economy from production and capital expenses.

An authorized licence to store more water can bring the farm to full production and expansion. The estimated increased expenditure will be **R6 869 298.0**. It will multiply to an added **R15 936 771** turned over in the local economy.

Economic impacts assist with determining if a project will enhance net societal welfare for different sectors and groups of society. Water security will ensure secure production and increased growth in the local economy.

7.2.6 Meeting the requirements of section 27(1) c

A successful WULA and water security for JG NEL FAMILY TRUST align with the local strategic objectives of economic growth, job creation and poverty alleviation.

The requirements of Section 27(1) c in terms of efficient and beneficial water use in the public interest will be met by this application.

7.3 THE SOCIO-ECONOMIC IMPACT OF THE WATER USE IF AUTHORISED OR OF THE FAILURE TO AUTHORISE THE WATER USE OR USES SECTION 27(1) D

This section will be addressed with the assessment of the socio-economic impacts to meet the requirements of NEMA as well as Section 27(i)d of the NWA.

8. DESCRIPTION OF ALTERNATIVES

8.1 SECTION 27(1) OF THE NWA PRESCRIBES THAT ALTERNATIVES BE ASSESSED

- *Should the water use or uses be authorized OR*

- *the failure to authorize the water use or uses.*

JG NEL FAMILY TRUST is applying for the authorisation of water uses for the JG Nel Family Trust in terms of taking, storing and altering of the banks of a Water Course

8.2 SECTION 24G APPLICATION DUE TO COMMENCEMENT OF LISTED ACTIVITIES WITHOUT ENVIRONMENTAL AUTHORIZATION

In contravention of Section 24F of NEMA, the Applicant commenced listed activities (expansion of an existing dam) without the necessary environmental authorization and is now applying for ex post facto approval via a Section 24G Application process. Probable alternatives are:

- a) Authorization with rectification and mitigation
- b) Authorization without rectification and mitigation
- c) Failure to authorise(no-go)

Van Zyl et al advised that the following be taken into consideration when assessing economic impacts and considering alternatives. They stated that the “no-go” alternative in EIA processes provides a benchmark against which to evaluate potential impacts of the proposed project alternatives. The following should be considered:

- Does the project make financial sense or can it be justified for other reasons?
- Is the project economically worthwhile or justified?
- Are the environmental externalities associated with the project significant enough to feasibly outweigh the projects net benefits?
- If linkage effects are recognized, does the project have the potential to stimulate growth, income and employment in the district/region/country?
- Does the project compliment economic development and spatial planning in the area?
- Will the project introduce macro-economic risks?

Keeping these principles in mind, the core concept is 'opportunity cost'. This is the net benefit that would have been yielded by the next best alternative.

Considering alternatives:

1. The project makes financial sense and is economically worthwhile and justified
2. Dr. Jackie Dabrowski made recommendations for mitigation that can lead to a win-win solution: Authorization of the dam with minimizing environmental concerns.
3. Increase in volume of taking may not be at the detriment of the down- stream users. alternatives can only be considered when that data is available.

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4. A possible avenue to explore is a re-look at the taking of water for the farm Vanzyldamme that is currently verified, taking into consideration the water from the irrigation scheme.
5. The project has the potential to stimulate growth, income and employment in the district/region/country.
6. The project compliment economic development and spatial planning in the area
7. The project will not introduce macro-economic risks.

In contravention of Section 24F of NEMA, the Applicant commenced listed activities (expansion of an existing dam) without the necessary environmental authorization and is now applying for ex post facto approval via a Section 24G Application process. Probable alternatives are:

- d) Authorization with rectification and mitigation
- e) Authorization without rectification and mitigation
- f) Failure to authorise.

Van Zyl et al advised that the following be taken into consideration when assessing economic impacts and considering alternatives. They stated that the “no-go” alternative in EIA processes provides a benchmark against which to evaluate potential impacts of the proposed project alternatives. The following should be considered:

- Does the project make financial sense or can it be justified for other reasons?
- Is the project economically worthwhile or justified?
- Are the environmental externalities associated with the project significant enough to feasibly outweigh the projects net benefits?
- If linkage effects are recognized, does the project have the potential to stimulate growth, income and employment in the district/region/country?
- Does the project compliment economic development and spatial planning in the area?
- Will the project introduce macro-economic risks?

Keeping these principles in mind, the core concept is 'opportunity cost'. This is the net benefit that would have been yielded by the next best alternative (for example, if

farming is the next best alternative for a piece of land, then the foregone benefit associated with it will be the opportunity cost of any other land use).

9. SOCIO-ECONOMIC IMPACT ANALYSIS

9.1 LIST OF IMPACTS IDENTIFIED

The following 6 socio-economic impacts will be analysed:

- a) Racial and gender imbalances addressed in benefiting from water use
- b) Transformation in the water and agricultural sector
- c) Rural development in terms of food security and agrarian reform addressed
- d) Social discrepancies in wealth and opportunities addressed
- e) Job opportunities that will address unemployment and create sustainable livelihoods
- f) Local economic growth stimulated

9.2 CRITERIA FOR THE ANALYSIS OF THE SOCIO-ECONOMIC IMPACTS

9.2.1 The nature of the impact:

This involves an appraisal of the effect of the authorisation on the receiving environment.

9.2.2 Extent of the impact:

The extent of an impact describes the region in which the impact will be experienced: (a) mainly site related; (b) local (c) regional; (d) national and (e) international.

9.2.3 Duration of the impact:

The time frame in which the impact will be experienced: (a) temporary (b) short term (c) medium term (d) long term (e) permanent.

9.2.4 Intensity of the impact:

The magnitude or size of the impact: (a) high (b) medium or (c) low.

9.2.5 Probability of occurrence:

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The degree of possibility of the impact occurring: (a) improbable (b) probable (c) highly probable (d) definite.

9.3 ANALYSIS OF IMPACTS

a) Racial and gender imbalances addressed		
	Authorisation	Not authorised
Extent of impact	Regional	Local
Duration of impact	Long term	Long term
Intensity of impact	Medium impact	Medium impact
Probability of occurrence	Definite	Definite

Authorising the water uses and infrastructure development for JG NEL FAMILY TRUST will have a long term, medium impact on the empowerment of HDI's and especially HDI women. Five (5) HDI persons are partners an agricultural concern of which 1 is a woman. Racial and gender imbalances will be addressed through the ownership in Dam Workers Association through ongoing training and development and increased job opportunities for women and HDIs. International experiences with empowering women (Oportunidades in Mexico (www.oportunidades.gob.mx) and Grameen Bank in Bangladesh (www.grameenfoundation.org)) have proved that the social multiplier effect for empowering women is far greater and more beneficial for transformation than giving opportunities only to men. In this case a woman will be a business owner and farmer and other women will have the opportunity for job security that brings growth and development.

Should the water use and infra structure changes for JG NEL FAMILY TRUST not be authorized and the drought continues, job losses, opportunities for development and loss of income will definitely occur with medium impacts on a local and regional level.

b) Transformation in the water and agricultural sector

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	Authorised	Not authorised
Extent of impact	Regional and national	Regional and national
Duration of impact	Permanent	Medium term
Intensity of impact	Medium	Medium
Probability of occurrence	Definite	Probable

Authorising the water use and infra structure changes will ensure sustainability and prevent losses, serving the current national drive around redistribution of assets and sustainable agricultural reform – it will contribute to the sustainability of HDI persons taking part in agricultural businesses. This authorisation can serve as an example of private enterprise involvement in the field of agricultural transformation. The more common pattern nationally is that farmers form trusts with HDI farmers but in effect they themselves keep on farming on their behalf. They obey the letter of the law but not the spirit.

Should the water use and infra structure changes not be authorized, the impacts will also be regional and national with failed aspirations and hopes and even failed trust in the government system. Failed transformative experiences have a cumulative impact on a national and political level, fostering hopelessness, anger and unrest. The dissemination of information through social media means that failed initiatives in Ladismith can have a national impact.

c) Rural development in terms of food security and agrarian reform addressed		
	Authorised	Not authorised
Extent of impact	Local, regional	Local and regional
Duration of impact	Long term	Medium to long term
Intensity of impact	Medium impact	Medium impact
Probability of occurrence	Definite	Probable

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Authorising the water use and infra structure changes will have a permanent impact on a local and regional scale. Rural development is linked to land and agrarian reform and food security. Food production addresses food security on a national and regional level. The employment opportunities created also ensures food security for those families who earn income and have the opportunities to acquire skills that can lead to permanent and higher income. This application aligns with the purpose of the Integrated Sustainable Rural Development Strategy to enhance the welfare of the poor that inhabit rural areas of South Africa and catalysing the transformation of local rural areas into economically viable communities. Rural development is linked to land and agrarian reform and food security.

Should the water use and infra structure changes not be authorized, it can probably threaten food security through income and job losses. This is already happening in other parts of the region and country. The IDP of the Kannaland Municipality also highlighted the impact of agricultural constraints, resulting in the migration of farm workers to towns where in most cases these families became indigents. The impact will be on a medium to long term basis for many families. Research shows that families often never recover from a breadwinner losing a job, even for a medium period.

d) Social discrepancies in wealth and opportunities addressed		
	Authorised	Not authorised
Extent of impact	Local and regional	Local and regional
Duration of impact	Medium term	Medium term
Intensity of impact	Medium-high	Medium-high
Probability of occurrence	Probable	Probable

It is probable that authorising the water use and infra structure changes for JG NEL FAMILY TRUST will have a medium term impact on a local and regional scale. Being able to utilize authorised water contributes to developing economically sustainable and strong businesses. JG NEL FAMILY TRUST is in the process of setting up an agricultural business with HDI ownership and shares in the production company. They contracted to transfer skills and facilitate the growth of a Black

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farming enterprise. The important next step is to create a sustainable environment for continuing growth. Water security and drought measures on JG NEL FAMILY TRUST will have a direct impact on the viability of the Association.

Should the water use and infra structure changes not be authorized, the probability is high that the current social discrepancies will stay the same for a long time in the region.

e) Job opportunities that will address unemployment and create sustainable livelihoods		
	Authorised	Not authorised
Extent of impact	Local and regional	Local and regional
Duration of impact	Long term	Long term
Intensity of impact	High	High
Probability of occurrence	Highly probable	Highly probable

A livelihood is comprised of capabilities, assets and activities and it is sustainable when it has the ability to avoid or more usually to be resilient and recover from stressors and shocks. Sustainability serves to maintain and enhance households' capabilities and assets both now and for future generations, while not undermining the natural resource base (DFID 1999). This definition lies at the core of livelihoods analysis.

It is highly probable that authorising the water use and infra structure changes for JG NEL FAMILY TRUST will have a long term impact on sustainable livelihoods on a local and regional level. Job creation is a key intervention in the war on poverty and water is a key strategic factor. Water provisioning to economic sectors like agriculture is about creating jobs which would otherwise not be viable or created. Authorising the water will contribute to labour intensive activities, creating 80 permanent and 40 temporary new job opportunities and advance agricultural skills development for HDIs. The agricultural sector is shedding jobs, not creating them. If JG NEL FAMILY TRUST can store water it can create more jobs through its labour intensive business.

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Should the water use and infra structure changes not be authorised, it is highly probable that global warming impacts (increased drought cycles) will erode the benefits of the HDI enterprise and will cause severe job losses to persons who live on the farm and are dependent for their whole livelihood on their job.

f) Local economic growth stimulated		
	Authorised	Not authorised
Extent of impact	Local and regional	Local and regional
Duration of impact	Medium term	Medium term
Intensity of impact	Medium	Low
Probability of occurrence	Definite	Definite

Authorising the water use and infra structure changes for JG NEL FAMILY TRUST will have a medium term impact on the local economy on a local and regional scale. It will secure agricultural development in an area that showed a shrinking in the agricultural arena, an area with high unemployment and poverty rates. JG NEL FAMILY TRUST spent **R9 821 194** the local economy in the 2017-2018 financial year as well as **R1 314 019** on the unlawful infrastructure development. It contributes in effect **R22 785 170** in terms of the agricultural multiplier effect. An increase of 25% (functioning at 75%) will mean that **R6 869 298.00** more will be spend in the economy.

Should the water use and infra structure changes not be authorized, it is highly likely that inputs in the local economy will decrease without water security.

Should the water use and infra structure changes not be authorized, it remains highly probable that the negative community feelings will stay the same.

Mitigatory steps can be taken by JG NEL FAMILY TRUST and BGCMA to inform all the stakeholders of the authorisation process.

10. CUMULATIVE EFFECTS OF THE UNAUTHORISED ACTIVITIES

The Government Gazette, 24 March 2017 states that "cumulative impact" in relation to a water use, means the impact of a water use that in itself may not be significant, but may become significant when added to an existing and potential impacts eventuating from similar or diverse water use activities or undertakings in the area.

Cumulative effects mean the combined impacts. The intensity of the cumulative impact of the authorized water use can be from high to low.

Should the water uses and infrastructure development be authorised:

- Addressing HDI business ownership and racial and gender imbalances already have a HIGH cumulative impact on transformation in the water and agricultural sector and a MEDIUM impact on job opportunities and rural development. HDI ownership and equitable racial and gender balance are not enough inputs for economic growth and job creation.
- The cumulative impacts of transformation in the water and agricultural sector on rural development, eradication of poverty, job creation and rural development will be MEDIUM-HIGH. Sustainable growth, secure employment and food security are dependent on water security-especially in rural areas dependent on agriculture as the main economic driver.
- The current trend in addressing racial and gender imbalances can continue should there be water security and drought resilience and will have a HIGH-MEDIUM cumulative impact on job creation and rural development.

Should the water uses and infrastructure NOT be authorised:

- The cumulative impact of HDI ownership on racial and gender imbalances and transformation in the water and agricultural sector addressed will remain HIGH because it has already been implemented.
- The cumulative impacts of transformation in the water and agricultural sector (should the water NOT be authorised) on rural development, eradication of poverty, job creation and rural development will be MEDIUM. The HDI ownership and partnership are already in place but sustainable growth and secure employment are dependent on water security.
- Racial and gender imbalances have already been addressed to a degree through the HDI ownership but the cumulative impact on job creation and rural

development will be LOW should job losses and production cuts occur due to lack of sustainable water

- HDI ownership and equitable racial and gender balance are not enough inputs for economic growth and job creation.

11. MITIGATION MEASURES TO BE UNDERTAKEN

- 11.1 The creation of the BB-BEE partnership between JG NEL FAMILY TRUST and VANZYLDAMME BOERDERY (PTY)LTD and Dam Workers Association, as well the DRAFT **contract** currently in discussion between the Trust and the Association, should be finalized and will then be mitigatory steps.
- 11.2 The Final Contract can entirely be added to the EMP to be monitored.
- 11.3 The creation of 80 permanent and 40 temporary job opportunities is an important mitigatory step. A 5-7 year implementation plan, containing timeframes and numbers and taking probable weather scenarios into account should be made part of the EMP.

12. LIMITATIONS OF ASSESSMENT AND REPORT

- 12.1 The assessor attempted to obtain as much verified proof as possible for the data provided in this report. Some data and conclusions reached however were based purely on facts and numbers provided by the Trustees.
- 12.2 Limited population data is available on the Kerkplaas and Voorbaat communities where employees who do not live on the farm come from. It is probable that the future cohort of new employees will mainly come from those communities. A final report should contain more information about the significant impact that 80+ persons who earn an income will have on those communities
- 12.3 Precise data was not yet available on the volume of water for Lofpoort in terms of the servitude (Rooikrans dam) as well as whether the servitude will

also be in place for the Byevanger dam. In my opinion it is not necessary to do a Socio-economic Assessemnt for Lofpoort if the volume of water remains 3 000m3.

- 12.4 Down- stream users must be identified by BGCA and the impact of the Byevanger dam assessed in the Final Report

13. EVALUATION AND RECOMMENDATIONS

13.1 EVALUATION

This a DRAFT report. It can only be finalized when the following is available:

1. The Public participation process completed and input from I&A P's assessed
2. Down- stream users identified the impact of the Byevanger dam assessed.
3. The Contract as mentioned in 11.2 is available.
4. An Implementation Plan for job creation is available.

Agriculture requires relatively less capital to produce additional units of output; creates more employment opportunities than most other industries for every additional unit of output produced; growth in agricultural production, leads to greater employment creation in manufacturing and tourism, etc. than would an increase in output of other industries; more of the benefits of growth in farm output accrue to the poorest 20% of the population than in any comparable industry.

The national imperative on transformation has a focus on increasing the number of black participants in agriculture to ensure more ownership and control of the agricultural value chain by previously disadvantaged groups.

A new BB-BEE agricultural business like the Association can only get off the ground if:

- a) It has land to farm on-be it initially rental land –and if it has a reasonable outlook for buying own land in the future.
- b) It has the water to irrigate and plant
- c) It has support and mentorship to become commercial farmers.

There is broad scientific consensus that the global temperature is increasing and these changes are likely to impact on the suitability of growing conditions. It is also expected that the frequency and severity of extreme floods and droughts will increase. Strategic Measure 2.7 of the BGCMS states that strategies must be adopted to reflect climate change aspects and that drought resilience must be built or developed (p 73).

The Western Cape lost 30 000 jobs in 2018 in the agricultural sector due to the drought. JG NEL FAMILY TRUST is functioning at 50% capacity but has not shed any jobs at all. The 135 persons who live on the farm have housing and livelihood security. Increased storage will ensure 80 permanent and 4 temporary jobs will be created annually.

It can be concluded that there was and is a need for:

- Water security to keep the farm going (after the loss of the storage in the Rooikrans dam as well as the loss of the water received 3 times a year from the Buffelsdrift Irrigation scheme.) Building the Byevanger dam is an attempt to make provision for lost storage and lost taking of water (420 hectares listed with the Buffelsrivier Irrigation Scheme cannot be farmed because of the loss of taking 7 900m³ water 3 times a year for the last 4 years). Taking of water from the valley and tributaries upstream of the new dam is an attempt for water security.
- Job security and livelihood sustainability for the employees of VanZylsdamme and their families

Desirability of the action:

The unlawful manner in which JG NEL FAMILY TRUST built a new dam that will be able to store 139 621 m³ water more than the verification for the previous dam, Rooikrans, was **undesirable**. The full impact on the riverine system and downstream users is not yet known.

The other side of the picture is that the breaking of the old dam left them with 10 000m³ less storage in a 4 year drought period. Matters were intensified by the total absence water from the Buffels rivier scheme as pointed out.

Authorising the infra structure and increased taking from the area above the dam will:

- a) Partially meet the requirements of section 27(1) b of the NWA in terms of redress the results of past racial and gender discrimination
- b) Meet the requirements of section 27(1) b of the NWA in terms of efficient and beneficial use of water in the public interest through:
 - Meeting local strategic objectives
 - Meeting transformational goals
 - Rural development in terms of food security and agrarian reform
 - Address social discrepancies in wealth and opportunities
 - Contribute towards eradication of extreme poverty and hunger
 - Create job opportunities that will address unemployment and create sustainable livelihoods
 - Stimulate local economic growth

13.2 RECOMMENDATIONS

Authorising the activities will give rise to positive impacts that are local and regionalised. Some decision makers have in recent times developed a disregard for the positive impacts of new employment opportunities and job security. They might have lost touch with the serious scourge of hunger and the other impacts of extreme poverty. ALL OPPORTUNITIES to create sustainable livelihoods must be grabbed if they do not give rise to serious environmental damage. Assessing the best alternative can involve looking for the net benefit that will flow from the next best alternative.

The requirements of Section 27(1) b-d of the NWA, Act 26 of 1998 will be met partially by this application. This application will ensure and protect sustainable livelihoods, create job opportunities and promote local economic development.

- a) The Contract between JG NEL FAMILY TRUST, VANZYLSDAMME BOERDERY(PTY)LTD and Dam Workers Association must in total be added to the EMP.
- b) The creation of 80 permanent and 40 temporary job opportunities is an important mitigatory step. A 5-7 year implementation plan, containing timeframes and numbers and taking probable weather scenarios into account should be made part of the EMP.

- c) Down- stream users to be identified and the impact of increased taking and storage in the Byevanger dam assessed.
- d) I strongly recommend that should any fine be given to JG NEL FAMILY TRUST for the unlawful activities the authorities rather consider contributing to the national goal of land redistribution and rural transformation. the JG NEL FAMILY TRUST can be given the option to rather assist the association with obtaining land of their own.

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