FILIA VISUAL

Vleiplaas, Clanwilliam, 8135 · (+27) 79 841 0340
filia.visual@gmail.com

Attention: Mathys Vosloo 24-09-2025
Zitholele Consulting
Building 1, Maxwell Office Park
Magwa Crescent West, Waterfall City, Midrand

Per email: mathysv@zitholele.co.za

Dear Mathys

VISUAL STATEMENT FOR THE CLANWILLIAM DAM RAISING PROJECT

This specialist statement has been prepared to inform an application for the amendment of the existing Record of Decision (RoD) issued for the Clanwilliam Dam raising project. The Environmental Authorisation (EA), issued in 2009 under the Environmental Conservation Act, included four conditions that the Department of Water and Sanitation has requested be reconsidered for possible amendment or removal. The current amendment application is being undertaken by Zitholele Consulting in terms of the National Environmental Management Act 107 of 1998 (NEMA).

1. Background and Scope of Work

Filia Visual was appointed to prepare a visual specialist statement that reviews the original Visual and Heritage specialist reports, assesses the surrounding landscape, and advises whether the four conditions (as set out in the Request for Quotation dated 13 March 2024) should be retained, amended, or removed. This statement has been compiled in accordance with Appendix 6 of the NEMA (Act 107 of 1998) Environmental Impact Assessment Regulations, 2014, and will serve as a specialist input to the Public Participation Process undertaken by Zitholele Consulting.

A Visual Impact Assessment (VIA) was previously conducted by Ninham Shand Consulting Services in December 2006 to assess the potential visual impacts of raising the dam wall by 5m, 10m, or 15m. That assessment also considered the proposed extension of the quarry and the realignment of the N7. While the visual impacts of the quarry extension remain relevant, the N7 realignment has since been completed and is therefore outside the scope of this statement.

For consistency, the Clanwilliam Dam raising project is hereafter referred to as *the Project*. The Project activities are understood to include the following (as illustrated in Figures 1 – 5 below):

- Raising of the dam wall;
- Construction activities and associated facilities (e.g., site offices, temporary roads, clearance of construction and laydown areas);
- Crusher plant and screening area;
- Inundation area following completion of the raised dam wall;
- Extension of the existing quarry;
- Material stockpile areas.

The competent authority ultimately approved a 13 m[1] increase to the dam wall height, with additional authorisation later granted for a crusher plant, material stockpiles, and quarry extension. Construction facilities west of the dam wall have expanded significantly beyond the footprint illustrated in Figure 9 of the 2006 VIA. Vegetation and soil disturbance in these areas appears substantial and should be addressed through mitigation measures already included in the relevant Environmental Management Plans (EMPs) and Environmental Management Programmes (EMPRs), as well as those recommended in this report.

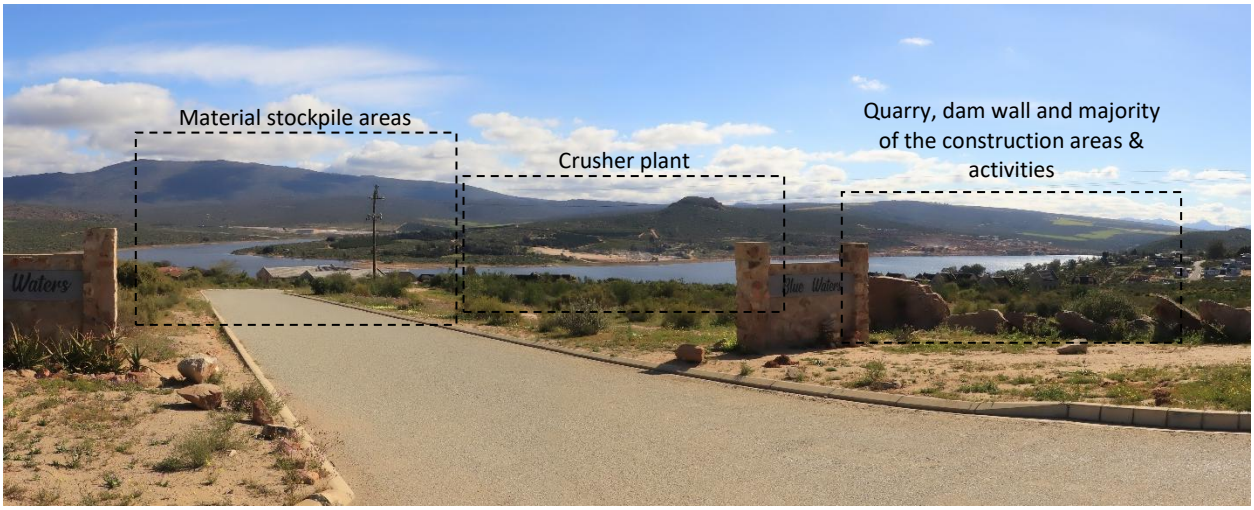

Figure 1: *Site photograph illustrating the extent of the Project on the western bank of Clanwilliam Dam (Smit, 2025)*

Figure 2: *Enlargement of Figure 1 above, showing material stockpile areas (Smit, 2025)*

[1] *Subsequent analysis of the technical drawings during the process of simulation revealed that the increase in the height of the dam measured from the top of the existing dam to the top of the proposed new dam wall was 14,63m. This observation was confirmed by the ECO on behalf of the project engineers in an email dated 11/09/2025.*

Figure 3: *Enlargement of Figure 1 above, showing crusher plant and materials screening area (Smit, 2025)*

Figure 4: *Enlargement of Figure 1 above, showing the extension to the quarry, the dam wall and the majority of the construction activities and areas visible on the western bank (Smit, 2025)*

As indicated in the RFQ, the scope of this specialist opinion includes determining whether the raised dam wall itself should be considered visually intrusive. One of the original conditions suggests that visual receptors along the eastern shore would perceive the upstream face of the dam wall as visually unappealing, and this issue requires clarification.

The conditions from the 2009 Record of Decision are as follows:

i. ***Condition G.15.1.*** *Trees must be planted for visually sensitive receptors along the eastern shore of the dam to screen the raised wall.*
ii. ***Condition G.15.2*** *DWAF must provide saplings to those who would like to plant and screen the raised wall.*
iii. ***Condition G.15.3*** *The inundation dam fringe must be revegetated to reduce the aesthetically unpleasant visual scarring effect of dam level fluctuations.*
iv. ***Condition G.15.4.*** *An environmental rehabilitation and restoration plan must be implemented to, inter alia, address revegetation of disturbed areas.*

Figure 5: *View of the construction areas on the western bank as viewed from the N7, looking south (Smit, 2025)*

2. Methodology

To address the objectives of this specialist statement, the methodology combined document review, fieldwork, and analysis. Existing specialist studies were consulted, including the Visual Impact Assessment by Ninham Shand Consulting Practices (December 2006), the Heritage Impact Assessment by Jayson Orton and Tim Hart (Archaeology), updated construction documentation, and associated KMZ files. A desktop study of the receiving environment was undertaken using digital topographical survey maps and the Elsenburg Cape Farm Mapper tools. Fieldwork included a site visit in August 2025 to compare current conditions with those recorded in the earlier assessments, together with a photographic survey of the dam and its surroundings, capturing views from and towards visually sensitive receptors as well as areas of disturbance.

As part of the analysis, a set of graphics was prepared to demonstrate changes in the landscape since the original studies, illustrate any modifications to the proposed development with visual implications, and show potential visual impacts relevant to the conditions under review. These graphics are included later in the report. Consultation was also undertaken with the appointed Biodiversity Specialist to confirm interrelated considerations. Finally, insights from the reviewed documentation, site observations, and specialist input were synthesised into a discussion of the conditions under consideration, leading to recommendations on their amendment, retention, or removal.

3. Assumptions and Limitations

The following assumptions and limitations apply to this specialist statement:

- The scope of this statement is confined to assessing the validity of the conditions set out in the briefing document. No new visual impacts are assessed, and any omission outside the scope defined in the RFQ is intentional.
- Information provided by others is assumed to be correct and up to date, unless otherwise indicated by the client, project team, or relevant source. Filia Visual accepts no responsibility for incomplete or inaccurate data supplied by others.
- It is assumed that any Public Participation or formal commenting and objection processes undertaken by others will identify and incorporate all relevant stakeholder concerns.
- The project information provided in .kmz and .kml format as well as all technical drawings are assumed to provide an accurate approximation of the proposed development's eventual full supply level (FSL). The coordinate system used is Pseudo Mercator (EPSG: 3857).
- Photographic images and photomontages are used to represent the receiving environment and

the proposed development as accurately as possible. However, these two-dimensional representations cannot capture the full complexity of visual experience and should be regarded as approximations of the three-dimensional views available in the field (The Landscape Institute, 2011).

- Simulations and 3D models overlaid onto site models do not typically reflect site clearance or vegetation removal. As a result, they may suggest a higher degree of visual absorption capacity than will be the case once development is implemented.
- This study assumes that the development proposal will not undergo significant amendment after the issue of this report, and that any guidelines or recommendations will be interpreted in a manner consistent with this study.

4. Desktop study, Site visit and Fieldwork

The site visit was conducted on 20 August 2025, under sunny weather conditions. The fieldwork was undertaken in late winter, and the dam level is correspondingly high. Views were tested within the Receiving Environment from which the various components of the Project would be visible. The basic assumption for this mode of visibility testing is that the observer eye height is 1.8m above ground level, and preferences reasonably accessible locations. Fieldwork was undertaken using a Canon EOS 550D with an EFS 18–55 mm lens, with photographs recorded at georeferenced locations.

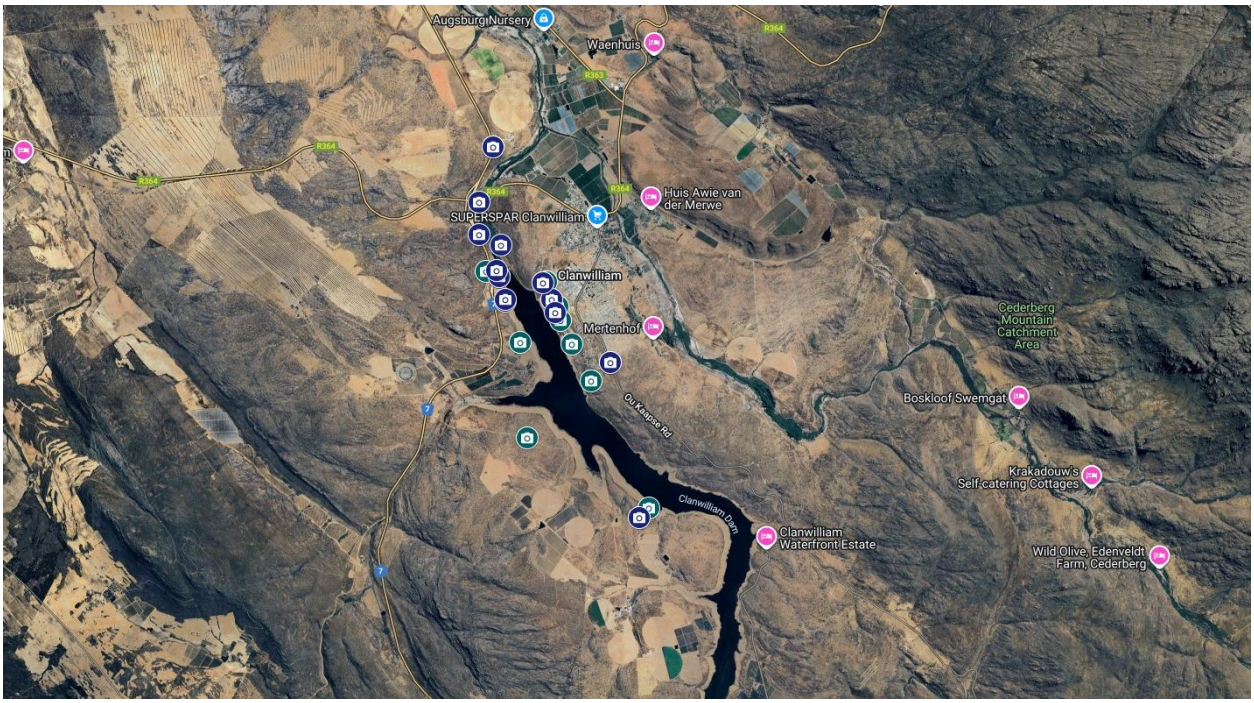

Figure 6: *Site visit diagram showing georeferenced photograph locations (Smit, 2025)*

The locations of photographs were guided by those taken in the original VIA, with supplementary photographs captured to document newly visible aspects and disturbed areas that have emerged during the construction phase. Figures 7–19 provide side-by-side comparisons of key views identified in the original VIA prepared by Ninham Shand (2006) with updated images taken by the author in 2025.

Figure 7: *Comparative image of Photo 1 in the original VIA by Ninham & Shand, 2009, showing the downstream elevation of the existing dam wall, and an updated view from 2025 (Ninham & Shand, 2009 and Smit, 2025)*

Figure 8: *Comparative image of Figure 2 showing a view of the downstream face of the existing dam wall, looking south, illustrating the dam raising alternatives (i.e. green: 5m raising; yellow: 10m raising; red: 15m raising) (Ninham & Shand, 2009 and Smit, 2025)*

Figure 9: *Comparative image of Photo 2, showing a view of the upstream face of the dam wall, looking northeast (Ninham & Shand, 2009 and Smit, 2025)*

Figure 10: *Comparative image of Photo 3 and 4, showing a view of the existing and extended quarry to the west of the dam wall (Ninham & Shand, 2009 and Smit, 2025)*

Figure 11: *Comparative image of Photo 5, showing a view 1 km north of Clanwilliam Dam, viewed from the N7 (Ninham & Shand, 2009 and Smit, 2025)*

Figure 12: *Comparative image of Photo 6, showing a view 2.5 km north of Clanwilliam Dam, viewed from the N7. The dam wall is visible but not noticeable. (Ninham & Shand, 2009 and Smit, 2025)*

Figure 13: *Comparative image of Photo 7, showing the dam wall viewed from the access road between the N7 and Clanwilliam, approximately 1.5 km north of the dam (Ninham & Shand, 2009 and Smit, 2025)*

Figure 14: *Comparative image of Photo 8, showing a view of the dam wall from the eastern bank, 2-3 km upstream of the wall. Dam blends into surroundings. (Ninham & Shand, 2009 and Smit, 2025)*

Figure 15: *Comparative image of Photo 9, showing a view of the View from Cederview towards the dam wall (Ninham & Shand, 2009 and Smit, 2025)*

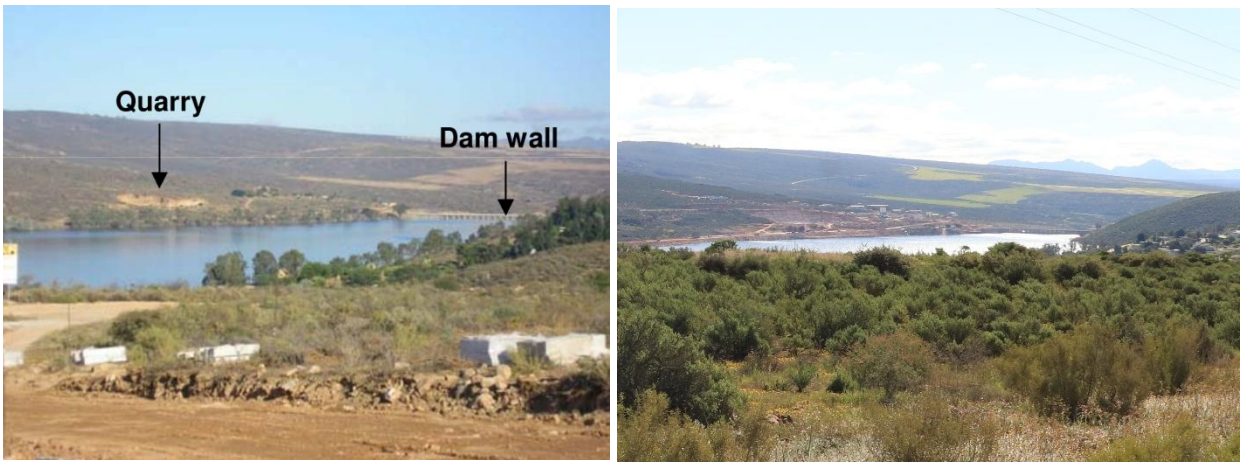

Figure 16: *Comparative image of Photo 9 and 10, showing a view from DR 2183 and Clanwilliam Hills towards dam wall and the quarry (Ninham & Shand, 2009 and Smit, 2025)*

Figure 17: *Comparative image of Photo 12, view from Ramskop Nature Reserve of the existing quarry (Ninham & Shand, 2009 and Smit, 2025)*

Figure 18: *Comparative image of Photo 13, showing a view from Clanwilliam Municipality Dam Resort chalets towards quarry and N7, which is largely screened by vegetation (Ninham & Shand, 2009 and Smit, 2025)*

Figure 19: *Comparative image of Photo 14, showing the view looking across the dam from the quarry across to the eastern shore (Ninham & Shand, 2009 and Smit, 2025)*

The following Figures serve as a record of the project information available at the time of the writing of this report, and for future reference.

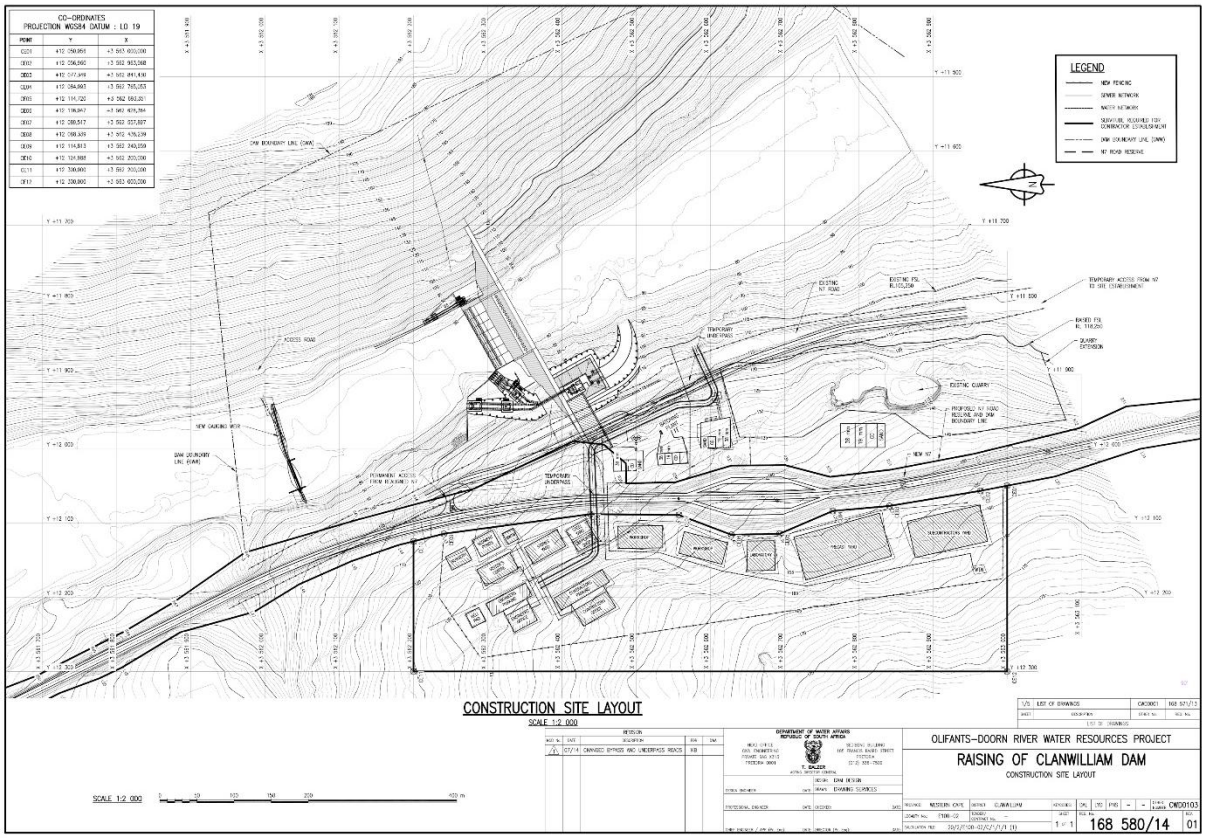

Figure 20: *Construction Site Layout (Department of Water and Sanitation, 2014)*

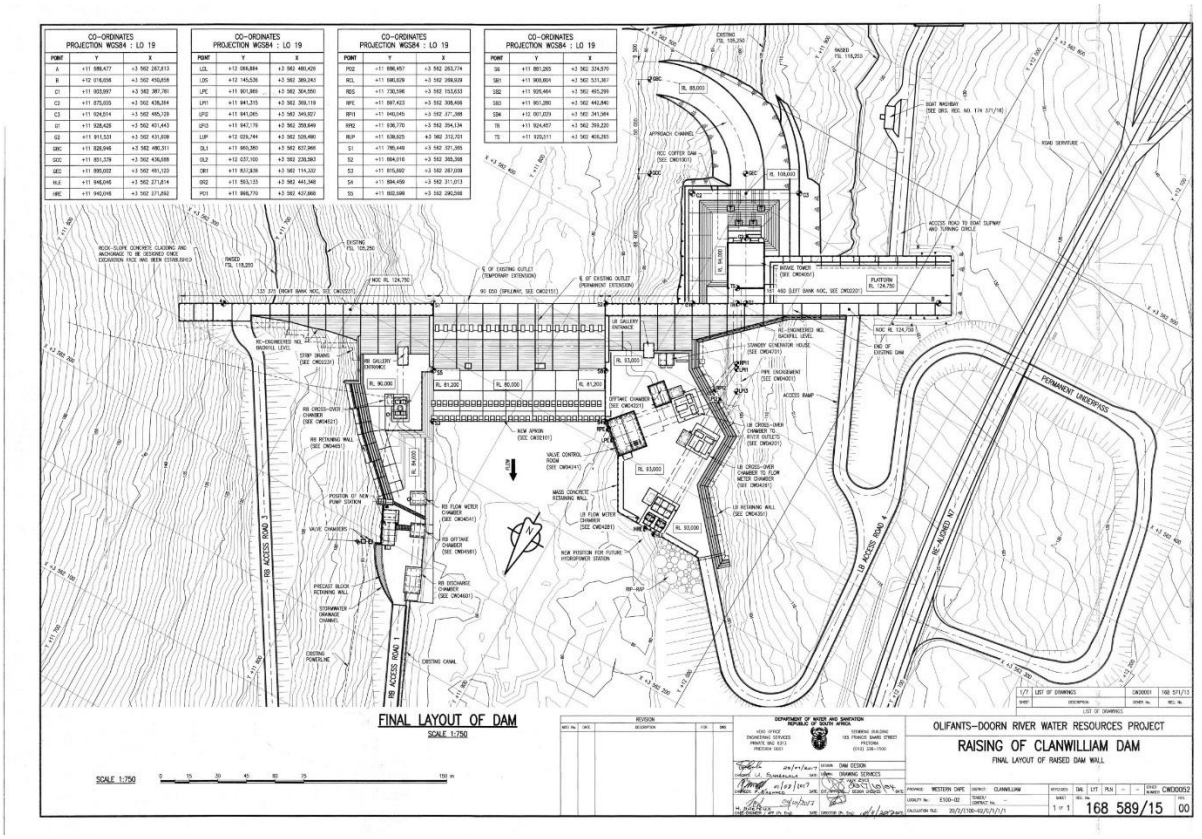

Figure 21: *Final Layout of Dam (Department of Water and Sanitation, 2017)*

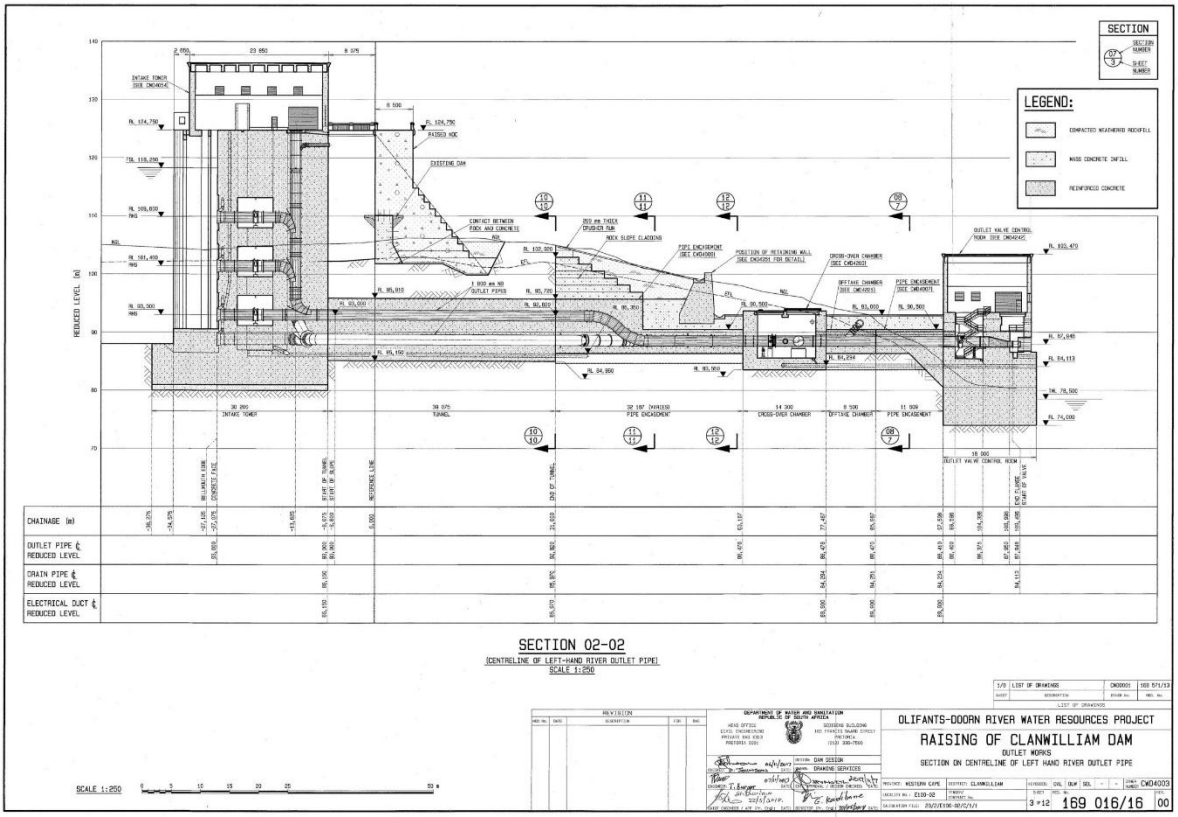

Figure 22: *Section 02-02, showing total height of the dam as well as the (significantly taller) intake tower (Department of Water and Sanitation, 2017)*

It should be noted that the VIA does not make mention of the intake tower illustrated in Figure 23 above. This structure, although it does not raise the overall level of the dam wall, was either not part of the design at the time of the writing of the VIA, or it was overlooked as a visible element requiring mitigation. See Condition 1 & 2 for further detail.

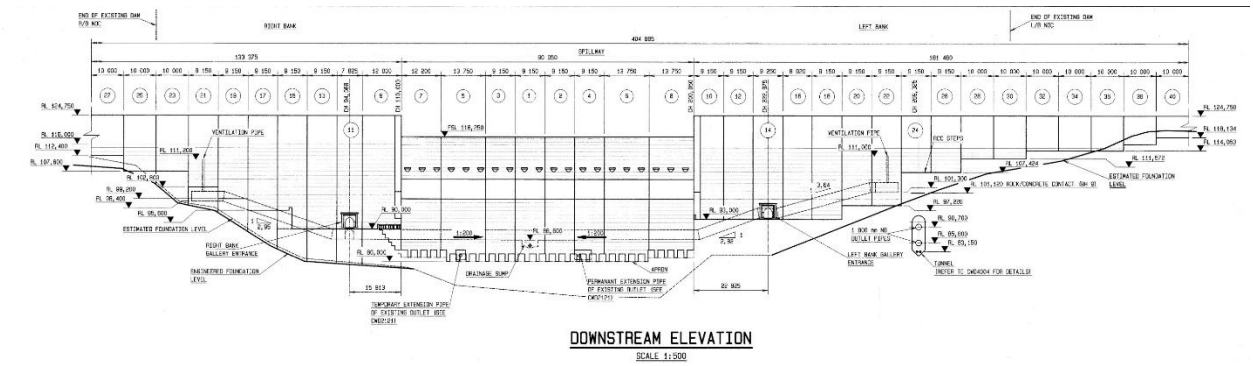

Figure 23: *Downstream elevation of the approved Dam wall raising (Department of Water and Sanitation, 2017)*

The following diagrammatic simulations illustrate observations made during the Desktop study and Fieldwork.

Figure 24: *Diagrammatic simulation of the FSL after completion of the works, as viewed from the existing construction road on the level of the old N7, looking south east across the water towards Ramskop Nature Reserve and the concentration of visual receptors on the eastern bank (Smit, 2025)*

Figure 24 above is a diagrammatic representation of the FSL and the proposed dam wall that approximates the height and point of contact on the eastern bank. The reason for the extensive vegetation clearing and earthworks undertaken in this area is unclear, given the estimated final height of the dam wall, and the apparent lack of other infrastructure proposed in this area (see Figure 21 for plan view). The building mass of the intake tower is not illustrated in this simulation because the viewer is located within its proposed footprint.

Figure 25: *Diagrammatic simulation of the FSL after completion of the works, affecting residences on the eastern bank of Clanwilliam Dam (Smit, 2025)*

Figure 26: *Diagrammatic simulation of the FSL after completion of the works (approximate), affecting Caleta Cove (Smit, 2025)*

Although the following aspects are not explicitly covered by the four conditions under review, they warrant mention in this desktop study. As an independent visual specialist, it is important to highlight where visual, heritage, and cultural landscape considerations intersect or were overlooked in earlier

assessments, since such omissions have a bearing on the completeness and credibility of the visual impact record.

The 2006 VIA identifies the town of Clanwilliam, the dam itself, the surrounding agricultural setting, and pockets of residential and tourist facilities as the key elements contributing to the character of the study area. However, an important omission is the role of adjacent scenery. Views of natural vegetation on the low rolling foothills, together with distant views of the Cederberg mountains, act as visual "containers" that frame the character of the setting and contribute significantly to the value of its visual resources. Disturbance of this containing landscape reduces the overall quality of the visual character and erodes sense of place, undermining both the scenic and heritage resource base that is highly valued by residents, farmers, and tourists alike. It is therefore critical that disturbances to these containing landscapes are rehabilitated successfully and as soon as possible after disturbance occurs. The VIA does not explicitly identify recreational users of the dam—such as members of the public engaged in boating, fishing, and water-skiing—as visually sensitive receptors. Neither does it include the Ramskop Nature Reserve, despite its status as a highly valued scenic facility. Similarly, the informal settlement, which at the time had not extended beyond the crest of the hill, was not noted in the original assessment but must now be included for completeness, as the westernmost residences are visible from the dam environs and have line of sight to Project-related disturbances.

Several residential and holiday houses along the banks of the Clanwilliam Dam also fall within the proposed inundation zone, together with the Cedar Rock Resort, the Aquatic Club, and the Clanwilliam Dam Municipal Resort's camping grounds. Although not specifically referenced in the VIA, the trees that line the dam and shade the campgrounds are integral components of the Receiving Environment's landscape character and contribute directly to sense of place. Once these areas are inundated, this character will change. Without a replanting programme, the dam edge will revert to its pre-planting condition. From a visual perspective, this is anticipated to result in a positive visual impact, as the shoreline will integrate more seamlessly with the surrounding fynbos landscape and lose its anthropogenic modifications. This process aligns with the principle, discussed under Condition 3, of ensuring continuity between the inundation edge (fringe zone) and the broader fynbos context.

It is also notable that the VIA and the HIA appear to have limited points of overlap—an unexpected outcome given the highly scenic qualities of the Receiving Environment and its strong cultural landscape character, which is of clear value to residents, farmers, tourists, and the local economy. The Heritage report identifies the loss of sections of the Ou Kaapse Weg between Citrusdal and Clanwilliam as an unmitigable effect of raising the FSL. This represents a significant loss of public access to scenic resources, yet it was not addressed in the 2006 VIA. Similarly, the submergence of three highly significant rock art sites—recommended for relocation by specialists—was omitted from the VIA, despite representing a critical loss of heritage-linked scenic resources. The author was able to ascertain that some of the physical mitigation measures prescribed in the HIA were undertaken, including the successful removal of two of the rock art panels[2].

Furthermore, there appears to be no replacement plan for the Aquatic Club or the Municipal Dam Resort, both of which are highly valued community facilities that provided direct access to the dam's visual and recreational resources. The absence of such facilities represents not only a cultural and heritage loss but also a reduction in public access to visual resources, which could have been mitigated by planning for replacement or alternative venues.

Finally, the loss of fynbos vegetation within the inundation zone was not explicitly assessed as a visual

[2] Our research indicates that the panels, after being stored in Clanwilliam for a time, were entrusted to John Parkington, and removed to UCT or IZIKO.

impact in the 2006 VIA. In my opinion, this omission understates the overall significance of visual impacts associated with the Project and suggests that more specific, widely applicable mitigation measures could have been identified had this aspect been considered from the outset.

Summary:

i. The original VIA omitted the role of adjacent scenery—natural foothills and distant Cederberg mountains—that act as visual containers, framing the setting and contributing to its scenic and heritage value.
ii. Recreational users of the dam, the Ramskop Nature Reserve, and the nearby informal settlement were not identified as visually sensitive receptors despite their clear visibility and reliance on the dam's landscape quality.
iii. Several residential and holiday houses, together with the Cedar Rock Resort, Aquatic Club, and Municipal Dam Resort campgrounds, fall within the inundation zone; the associated trees and planted shoreline, integral to sense of place, were also overlooked.
iv. The VIA did not acknowledge that inundation would fundamentally alter shoreline character: while the loss of shade trees diminishes the current landscape, the longer-term integration with fynbos vegetation may create a more seamless natural edge.
v. Critical heritage-linked scenic resources were excluded, including the loss of sections of the historic Ou Kaapse Weg and the submergence of rock art sites, despite these being recorded in the Heritage Impact Assessment.
vi. The VIA also failed to address the lack of replacement for valued community facilities such as the Aquatic Club and Municipal Dam Resort, and it did not assess the visual consequences of losing fynbos vegetation within the inundation zone.

Taken together, these omissions point to an underestimation of the visual and scenic resource base in the original VIA. While not directly addressed by the conditions under review, they are relevant to a complete understanding of the Receiving Environment and the Project's visual consequences. Acknowledging them here provides important context for the Discussion section that follows, which focuses on the conditions themselves.

Figure 27: *Simulation of the proposed dam wall as viewed from the N7 for commuters travelling south (Smit, 2025)*

5. Discussion

5.1. Conditions 1 and 2

> **Condition G.15.1.:** Trees must be planted for visually sensitive receptors along the eastern shore of the dam to screen the raised wall.
>
> **Condition G.15.2:** DWAF must provide saplings to those who would like to plant and screen the raised wall.

Conditions 1 and 2 are closely related and discussed together in the following section. Both conditions are aimed at reducing the visual prominence of the raised dam wall through tree planting as a form of screening for sensitive receptors. Condition 1 creates a direct, site-specific obligation on the applicant to establish trees along the eastern shore, thereby ensuring a predictable mitigation outcome. Condition 2, by contrast, places the applicant in a facilitative role, requiring DWAF to provide saplings to interested parties but leaving the planting itself contingent on voluntary uptake by others. While they share the same purpose and means, the first condition is proactive and controlled, whereas the second is reactive and open-ended, with a less certain visual result.

It should be noted that the VIA did not specifically call for this differentiation in the 2006 VIA. On page 23 of the 2006 VIA, the authors recommended the following under the sub-heading of 'Raising of the Dam':

> *"Viewer related mitigation measures could however be implemented, including for example, the planting of trees at receptor sites (e.g. Cederview) to screen the raised wall and accordingly minimise the visual impact. In this regard, DWAF could provide saplings for those who would like to plant and screen the raised wall as an exercise of goodwill, i.e. make trees available to landowners for planting during and at the end of construction."*

The reference to the "eastern shore" in the original condition is somewhat misleading, as sensitive receptors are not confined to this area. Since the original study, the number of receptors on the eastern shore has increased, with additional homes constructed in the low-density housing estate and expansion of the informal settlement (see Fig. 29).

The Ramskop Nature Reserve, although mentioned in the VIA, does not appear in the receptor list, and none of the mitigation measures explicitly address potential visual impacts on this highly valued community facility, which is itself a scenic asset. All of these receptors are subject to long-term visual disturbance resulting from the Project. Tree-planting conditions should therefore apply more broadly and include all sensitive receptors with direct line of sight[3] to the Project's visual elements.

[3] ***Line of sight*** *refers to the direct, uninterrupted view between a person standing at a given location and a feature in the landscape. If terrain, vegetation, or buildings block the view, the line of sight is broken; if nothing interrupts it, the feature is visible.*

Figure 28: *Site photograph to illustrate the extent to which vegetation plays a role in screening the Project from view, taken from the tarred road giving access to the municipal dam resort on the eastern bank. Note that the dam wall itself is not visible from this vantage point, but the construction activities and areas, including the crusher plant are clearly visible through breaks in the vegetation. (Smit, 2025)*

Figure 29: *Site photograph illustrating the range and variety of viewers and viewer locations on the eastern bank from which the Project is visible. These include from left to right: Ramskop Nature Reserve, the municipal chalets, Clanwilliam Dam Resort, Clanwilliam Hills residential estate, informal residential area east of Ou Kaapse Road, Crystal Waters/Blue Waters residential estate. Yamu lifestyle resort and Caleta Cove are out of frame on the right. (Smit, 2025)*

As shown in Figures 29, 30 and 31, planting trees along the eastern shore of the dam will not effectively screen views for most sensitive receptors, many of which are located at higher elevations than the tops of the tallest trees. Localised planting in key positions is a more effective method than restricting planting to the eastern shore alone. It would therefore be preferable to identify specific locations in need of screening with direct lines of sight and implement screening measures at those points.

Figure 30: *Site photograph taken from Willy Strassberger Dr within a small residential enclave on the eastern bank of the dam. This view is typical of views available from the Crystal Waters/Blue Waters estate. Note the lack of trees screening views over the dam at this elevation. (Smit, 2025)*

Both Conditions 1 & 2 aim to screen the raised dam wall and reduce its visual impact through tree planting. However, from a visual impact management perspective, the dam wall itself is not the most significant issue, and the rationale for tree planting in these conditions should therefore be reconsidered. According to the 2006 VIA, the raised dam wall—assessed under the 15 m development option as a worst-case scenario—was expected to have a medium visual impact, with low to medium levels of visual intrusion. Although the raising of the wall and subsequent inundation of a larger area constitute non-reversible impacts, they are not expected to be overwhelmingly negative in terms of viewer perception; the VIA recorded a mix of negative, positive, and neutral responses depending on the viewer. The impact assessment does not take into consideration that the intake tower will increase the visibility of the dam project for all receptors, including viewers on the N7, who would otherwise have very little visual access to the dam wall raising. Consideration of this additional visible element is included in the following discussion and the subsequent recommendations.

In contrast, the construction activities associated with the raising of the dam wall are considerably more visually intrusive and carry stronger negative associations from a viewer perception perspective. As construction began in 2013, these impacts can already be regarded as long-term. This suggests that tree planting, if required, would have been far more effective as a mitigation measure for construction-related disturbance rather than for the dam wall itself. Had the visual specialists at the time anticipated the true duration and extent of construction activities, they may have recommended immediate tree planting to help mitigate visual disturbance during or even before the construction phase.

It should be noted that newly planted trees do not provide immediate screening: most are planted as medium to large nursery stock (50–200 litre specimens), and depending on species and scale of disturbance, may only begin to provide noticeable screening two to five years after establishment, assuming optimal conditions such as well-drained soil, consistent irrigation, and appropriate soil preparation. As an old Chinese proverb goes, “The best time to plant a tree was twenty years ago. The second-best time is now.”

Planting trees at receptor sites around the dam to screen disturbance associated with the construction period is more pertinent—and, according to this report, more urgent—than screening the dam wall itself. One reason is because the construction period is highly likely to extend beyond 15 years, thereby constituting a long-term impact as defined in the original VIA. Construction commenced in 2012 with

the N7 realignment, while works on the dam began in late 2015 and are expected to continue for several more years. Another reason for the urgent mitigation of construction impact —beyond it being more visually intrusive than the dam wall—is that the construction phase is more disruptive to daily life, especially when linked to acoustic impacts/noise disturbances.

Although the impacts of construction activities - such as dust, vegetation clearance, large-scale construction camps and facilities, stockpile areas, crusher operations, and general landscape scarring - are reversible in the long term, their visual effects are immediate and recurrent from the point of view of a sensitive receptor. From a viewer perception perspective, these impacts are experienced as long-term, recurring disturbances that extend over more than a decade. This indicates that tree planting should have been prioritised during the early construction phase to help offset the sustained visual intrusion associated with construction activities. Importantly, this approach would have been feasible in the case of the Clanwilliam Dam raising Project, as trees could be planted at receptor sites rather than at the source of disturbance - a rare opportunity, since on smaller sites and private projects tree planting is usually only possible after construction, making vegetative mitigation of the construction phase effectively impossible.

It bears mention that the raising of the dam wall will result in other permanent visual effects beyond the wall itself, including the creation of a large new inundation zone with its associated fringe (addressed under Condition 3), as well as the loss of numerous mature trees on the eastern shore and elsewhere. The original VIA observed that inundation of trees along the eastern shoreline could cause them to die, thereby increasing the visual exposure of the quarry. It is inferred that this observation also applies to other disturbances associated with the raising of the dam wall that are visible from the eastern shore.

Figure 31: *Site photograph illustrating the size and variety of existing trees within the Clanwilliam municipal dam resort, which will be inundated. Note also that the height of the existing trees at maturity play no role in screening for viewers in the residential areas. (Smit, 2025)*

A particularly large number of mature trees occur within the municipal dam resort, representing a variety of species. The VIA did not explicitly note that the loss of these trees would significantly alter the sense of place, nor did it note the compounding the cumulative effect of losing a highly valued

recreational area long enjoyed by the public (see Fig. 31). Furthermore, the presence of drowned or decaying trees within the inundation zone will itself create a negative visual impact, which the 2006 VIA neither identified nor addressed through mitigation.

Additional recommendation: It is recommended that these trees be felled prior to inundation and either left in place or processed into chip or mulch for use elsewhere. This measure would not only avoid negative visual impacts but also reduce potential safety hazards such as floating debris. Given the cumulative recreational, social and heritage value of the municipal resort, proactive mitigation of tree loss is warranted.

5.2. Condition 3

Condition G.15.3: The inundation dam fringe must be revegetated to reduce the aesthetically unpleasant visual scarring effect of dam level fluctuations.

Based on aerial footage, fieldwork observations, and the photographic record in previous reports, it is evident that without intervention the landscape within the inundation dam fringe area will display an aesthetically unpleasant visual scarring effect. Two terms are important for clarity, and will be used in this report: the inundation zone (the area that will be permanently flooded once the dam wall is raised) and the fringe zone (the fluctuating shoreline where water levels rise and fall).

Consultation with the appointed biodiversity specialist indicated that the primary considerations within the inundation fringe zones are erosion management and alien vegetation control. Both of these measures also serve as means of managing visual impact. The biodiversity specialist's advice, together with site observations (see Fig. 32 below), confirms that revegetation is possible and that suitable species exist which are resilient or specialised enough to withstand both prolonged wet and dry conditions within their life cycle.

Figure 32: *Site photograph of the existing inundation fringe zone during winter, showing relatively continuous cover by low growing grass species. Note also the debris indicating a recent high-water mark, suggesting that these species tolerate inundation for periods of time. (Smit, 2025)*

Revegetation of dam inundation edges is not a universally standard practice internationally; many reservoir projects accept fluctuating margins as visually barren and focus instead on erosion control.

Where ecological integrity, scenic quality, or social use is prioritised, however, active rehabilitation measures are often imposed as part of approval conditions. Examples include the Berg River Dam (South Africa), where indigenous planting was applied for visual and ecological integration; the Three Gorges Dam (China), which trialled large-scale planting along a 30m fluctuating water zone with mixed success; and projects on the Colorado River (USA), where riparian rehabilitation was attempted downstream of Glen Canyon Dam. These cases highlight that while outcomes are technically challenging and variable, international precedents do exist. They demonstrate that with suitable species selection, hydrological understanding, and long-term management, inundation-edge revegetation can play a legitimate role in mitigating visual and ecological impacts of major dam projects.

Filia Visual is not qualified to prescribe botanical protocols or specifications to address this concern. However, if no action is taken the outcome would be visually problematic. From a visual perspective, the dam edges—the inundation fringe zone and the strip of vegetation directly above the high-water mark—should appear as continuous as possible with the surrounding fynbos vegetation. Over time, the inundation fringe zone all along the water's edge should be populated with appropriate indigenous and/or endemic aquatic species that can tolerate, and ideally thrive in, seasonally wet and dry conditions. Ideally, a team of specialists should be appointed to prepare a plan and strategy for the management of the inundation fringe zone.

5.3. Condition 4

Condition G.15.4.: An environmental rehabilitation and restoration plan must be implemented to, inter alia, address revegetation of disturbed areas.

This condition addresses a predominantly reversible visual impact. In terms of visual assessment practice, a reversible visual impact[4] refers to a change in the visual environment that can be restored, over time, to its original or a visually acceptable condition once the activity causing the change has ceased or mitigation has been implemented. If, however, disturbed areas are left unrehabilitated, the impact becomes permanent and potentially of greater magnitude than the raising of the dam wall itself (see Figures 33 and 35 below).

Rehabilitation is therefore strongly recommended to ensure that, once construction activity concludes, the scenic environment can be restored to its pre-disturbance condition—fynbos vegetation covering graded slopes. All areas, except those beneath permanent infrastructure such as buildings, roads, or parking areas, must be regarded as requiring rehabilitation. The original VIA did not account for construction activities beyond the quarry extension, yet in practice no open, unvegetated, or disturbed soil should remain unrehabilitated after construction is completed.

Wherever possible, rehabilitation should also be implemented progressively (i.e. concurrent with construction rather than delayed until the end of the project). Disturbed areas identified during fieldwork include the extended quarry, crusher plant and screening area, material stockpile areas, cleared surfaces on and around the construction site, and all exposed earthworks and temporary roads associated with the dam wall raising. This includes all embankments and permanent road verges, which should also be stabilized and revegetated.

The visual intrusion of the quarry was assessed as medium in the 2006 VIA. While the proposed

[4] In the South African EIA context, reversibility is assessed as part of the significance-rating criteria for environmental impacts, distinguishing between those that permanently alter visual character and those that allow the Receiving Environment to recover following rehabilitation (DEA&DP, 2005; Hilland Environmental, 2022)

enlargement was expected to be noticeable, the authors concluded that, given the quarry's presence in the landscape for more than 45 years, the extension would remain relatively compatible with the existing sense of place. In practice, however, the disturbed footprint has extended far beyond the quarry itself, with construction camps and associated disturbed areas now significant contributors to visual impact. These are the impacts that screening through tree planting seeks to address, and that rehabilitation and revegetation measures under Condition 4 must reinforce. This reinforces the earlier point that tree planting alone is insufficient, and that a comprehensive rehabilitation plan is essential to mitigate the broader landscape disturbance.

Figure 33: *Site photograph illustrating areas of disturbance on the eastern bank associated with the dam wall raising. Note the increased visibility of the road cutting sans vegetative rehabilitation of the road embankment. (Smit, 2025)*

Construction activities affect both vegetation cover and soil slopes within disturbed areas. Given the extensive scale of the Project, disruptions span a wide range of site conditions, each with unique rehabilitation requirements. What is needed is an overall Rehabilitation Plan for the Project that integrates all disturbed areas into a coordinated strategy. If such an overarching rehabilitation plan already exists, the applicant must ensure that each site condition is addressed with a sufficiently detailed and specific set of rehabilitation specifications—covering guidelines, measures, actions, monitoring requirements, and clear descriptions of success criteria.

The existing EMPr, developed primarily for approval of a borrow pit to supply aggregates, illustrates some of the necessary elements but is limited in scope and does not link visual considerations directly to the rationale for mitigation. A dedicated Rehabilitation Plan would therefore be required to ensure that the visual, ecological, and functional recovery of each disturbed area is adequately guided and enforced.

From a visual perspective, the overall rehabilitation plan should include the following parameters of success:

- All areas subject to cutting, filling, or bulk earthworks must be regraded to a stable slope that imitates the fall of surrounding landforms.
- Topsoil must be reinstated after grading, in accordance with the botanist's or rehabilitation plan's specification. Where topsoil was not stockpiled correctly or at the right time (e.g.; prior to construction), it must be sourced sustainably from elsewhere.
- The rehabilitation plan must account for soil type, slope, aspect, elevation, and other site-specific conditions that influence vegetation type and composition.
- Revegetation must occur over a prolonged period (3–5 years minimum) with active monitoring, to ensure correct species mixes are established and alien invasive species are

removed during the establishment period.

- The plan must be informed by a team including, at minimum, a botanical specialist, a landscape architect, and an ecological restoration specialist with sufficient experience in the fynbos biome.
- Timing of rehabilitation interventions must align with seasonal growth cycles and rainfall patterns.
- The plan must be outcome-based, with clear parameters of success and failure, and include detailed recommendations and adaptable methods to ensure targets are achieved. Failure to achieve the specified outcomes must be addressed with specific remedies.
- Monitoring must be actionable, time-based, and carried out by an appropriate professional or specialist to ensure rehabilitation success.

It must be emphasised that all disturbed areas across the Receiving Environment fall under this condition, including those omitted from consideration in the original VIA. Most disturbed areas located within the full supply level (FSL) will not require rehabilitation as they will be within the inundation zone, but areas within the fringe zone require particular attention under Condition 3. All other disturbed areas must be rehabilitated in accordance with a dedicated rehabilitation plan.

While some information is available regarding infrastructure that will remain after construction, future revisions to final plans may alter the extent of areas requiring rehabilitation. It is therefore difficult, within the scope of this report, to determine the full extent of rehabilitation needs. A detailed survey should be undertaken immediately to establish which areas will require rehabilitation, followed by the appointment of specialists to prepare a comprehensive rehabilitation plan with visual outcomes in mind. The survey should be repeated at the close of the construction phase to ensure that any changes or additional disturbed areas are incorporated into final rehabilitation works.

In South Africa, the Financial Provisioning Regulations require that funds be ring-fenced for rehabilitation, placing long-term responsibility with the commissioning party rather than the contractor; however, the current EMPr and Rehabilitation Plan do not, in my view, bind the applicant with sufficient clarity from a visual perspective. Rehabilitation success is typically assessed against ecological performance indicators such as vegetation cover, species richness, or transplant survival rates, but these are not linked to project milestones with immediate financial consequences, which reduces accountability once construction concludes.

Common pitfalls include the termination of ECO mandates at the end of construction, leaving no clear custodianship of long-term monitoring, and the absence of explicit penalties or reporting obligations to guarantee continuity. From a visual standpoint, these risks are heightened because landscape rehabilitation is slower to achieve and more difficult to measure, requiring explicit specialist input. Safeguards include progressive rehabilitation during construction, formal involvement of a suitably qualified landscape architect in drafting and/or post-construction reporting, and partnerships such as plant-rescue enrichment of Ramskop Nature Reserve. Together these points demonstrate the need for more detailed and binding provisions under Condition 4.

Figure 34: *Site photograph taken from the Ramskop Nature Reserve illustrating the visibility of disturbed areas from pathways within this highly valued facility. Notice especially the visibility of the quarry, which is located within approximately 800m of the viewer. (Smit, 2025)*

Figure 35: *Enlarged site photograph of the quarry and parts of the construction site areas visible from the slopes of the hill surrounding the Ramskop Nature Reserve (Smit 2025)*

Additional Recommendation: In line with the botanical specialist's guidance (Vol. 2, p. 45), a plant rescue programme should be implemented prior to inundation or disturbance. Bulbs, succulents, and other suitable species must be carefully removed from affected areas and used for rehabilitation of disturbed sites associated with construction activities (e.g. access routes, pipelines, canals, or mined areas), ensuring re-establishment within the same vegetation types.

In addition, rescued plants should be used to support ecological enrichment of the Ramskop Nature Reserve at Clanwilliam, thereby reinforcing a positive relationship between the project and the Reserve.

The author has seen no evidence of an operational on-site plant nursery, which suggests that search-and-rescue operations either failed or were not undertaken prior to the significant disturbance caused by construction activities. Additional information would be required to adjust or confirm this observation. It should however be noted as a concern, and compliance with the EMP and EMPr must be rectified if compliance has lapsed.

6. Summary of Findings

The table below sets out the original condition in the RoD, Filia Visual's recommendation to amend or remove the condition, and the Proposed condition wording. Motivation for each recommendation is offered in paragraph form below the table, and specific tasks or mitigation measures are listed in Appendix A.

#	Condition	Proposed condition wording: 22 October 2025 revision
1	*G.15.1.: Trees must be planted for visually sensitive receptors along the eastern shore of the dam to screen the raised wall.*	***Recommendation: Supported in principle. Remove condition. The content of this condition has been included in Condition G.15.2.***
2	*G.15.2: DWAF must provide saplings to those who would like to plant and screen the raised wall.* ***Recommendation: Supported in principle, with amendments***	The applicant must make suitable saplings and planting guidance available to the local municipality, affected landowners and community members who wish to establish supplementary planting on their properties or within public areas to mitigate any and all visual impacts associated with the project. Tree planting specifications and guidance on the selection of species, planting locations and irrigation (developed by a registered landscape architect) must be provided along with the sapling. The applicant must pro-actively advertise this opportunity to affected visual receptors through appropriate local channels (such as municipal notices, community meetings, or targeted communication with directly affected households, businesses and organizations). Advertising must commence immediately, and re-advertised monthly until the end of the construction period.
3	*G.15.3: The inundation dam fringe must be revegetated to reduce the aesthetically unpleasant visual scarring effect of dam level fluctuations.*	***Recommendation: Supported in principle. Remove condition: the content of this condition has been included in Condition G.15.2.***
4	*G.15.4.: An environmental rehabilitation and restoration plan must be implemented to, inter alia, address revegetation of disturbed areas.* ***Recommendation: Supported in principle, with amendments***	The applicant must appoint a suitably qualified specialist team (i.e. a botanical specialist, a registered landscape architect, and an ecological restoration specialist with proven fynbos expertise, as a minimum) to prepare and implement a comprehensive Environmental Rehabilitation and Restoration Plan and Programme. This Plan and Programme must be applied to all disturbed areas outside the inundation zone **including** the inundation fringe zone; and must include measurable outcome-based success criteria that include visual impact considerations. The applicant must allocate funds to ensure accountability and the long-term implementation of this Plan and Programme. The Rehabilitation Plan and Programme must commence concurrently with construction activities. It must include clearly defined **Progressive Rehabilitation Milestones** and an area-by-area **Minimum Rehabilitation Standard** to be achieved prior to the issuing of any completion or section-completion certificates. Long-term maintenance, monitoring and reporting beyond this baseline shall continue for at least 3–5 years under the Project's post-construction rehabilitation phase. The **Minimum Rehabilitation Standard** shall demonstrate that all disturbed areas have been stabilised, regraded to natural contours, topsoil replaced, erosion controls implemented, plant-rescue for use in rehabilitation and local community facilities enrichment undertaken, and revegetation initiated in accordance with the approved plan (i.e.; ≥70 % vegetative cover established).

		reporting programme extending at least 3–5 years post-construction, and ring-fenced financial provision to ensure long-term implementation and accountability.

6.1 Motivation for the amendment of Condition 1

The original wording of Condition 1 is supported in principle but requires amendment for clarity, scope, and effectiveness. Limiting mitigation to the "eastern shore" is too narrow, since visually sensitive receptors are located at multiple vantage points across the receiving environment, including Ramskop Nature Reserve, the municipal resort and chalets, Crystal/Blue Waters estates, Clanwilliam Hills, and the expanded informal settlement. In addition, visual intrusion is not limited to the raised dam wall itself: long-term construction activities, vegetation clearance, stockpiling, and quarry operations have created more intrusive and sustained impacts that are clearly visible from these receptors.

The amended wording therefore ensures that planting is directed to strategic public realm locations around the dam where it will provide the greatest screening benefit. By assigning responsibility for implementation to the applicant, in collaboration with the local municipality, the condition secures predictable mitigation outcomes rather than leaving planting contingent on voluntary uptake. Professional guidance from a registered landscape architect will ensure that species selection, planting locations, and establishment specifications are appropriate to site conditions, visually effective, and consistent with broader rehabilitation objectives.

Findings from the fieldwork underscore the necessity of this approach. Figures 28–31 show that tall trees planted along the shoreline do not adequately screen elevated receptors, making localised planting at receptor sites more effective than restricting interventions to the eastern shore alone. The anticipated inundation of mature trees within the municipal resort will also alter sense of place and reduce the valued shade and screening historically provided by these trees. The long construction period further demonstrates the need for planting to mitigate construction-related disturbance rather than the dam wall alone, as these impacts are both more visually intrusive and more disruptive to daily life.
The condition also corrects omissions in the original VIA. Recreational users of the dam and visitors to Ramskop Nature Reserve, both highly dependent on scenic quality, were not identified as sensitive receptors in the 2006 assessment. Including these groups within the planting programme ensures that mitigation reflects the true extent of visual sensitivity in the receiving environment.

In short, the amended condition retains the intent of the original but broadens its spatial focus, aligns mitigation with the actual hierarchy of visual impacts, and introduces professional oversight to ensure effective, targeted, and durable visual mitigation.

6.2 Motivation for the amendment of Condition 2

Condition 2 is also supported in principle but requires refinement to ensure it is both meaningful and effective. As originally worded, the condition requires the Department to provide saplings to those wishing to plant and screen the raised dam wall. On its own, however, this wording places mitigation in the hands of voluntary uptake by landowners or community members, which makes outcomes uncertain and potentially inconsistent. The intent of the condition is sound, but it must be reframed to promote broader participation while ensuring that planting contributes directly to the mitigation of visual impacts associated with the Project.

The amended wording therefore clarifies the applicant's role in making suitable saplings and planting guidance available, supported by professional oversight. In this way, private landowners, community members, and local institutions can supplement the formal planting programme required under Condition 1, while ensuring that these efforts remain consistent with the broader rehabilitation strategy. By advertising the opportunity through appropriate local channels—such as municipal notices, community meetings, or direct communication with affected households—the amended condition also addresses the practical risk that voluntary planting may otherwise remain negligible or uncoordinated.
This distinction between Condition 1 and Condition 2 is important. Whereas Condition 1 obliges the applicant to deliver targeted planting at strategic public realm locations, Condition 2 provides a parallel but complementary mechanism that enables individual property owners and community stakeholders to participate in mitigation. Both measures respond to the fact that construction activities, stockpiling, and vegetation clearance have proven more visually intrusive and sustained than the raised dam wall itself. With construction impacts reasonably expected to extend over more than 15 years, the involvement of multiple parties in tree planting is necessary to address cumulative and long-term visual disturbance across the full spectrum of receptors.

Condition 2 also helps to correct omissions in the original VIA, which did not explicitly identify the role of individual households, resort facilities, or recreational users in maintaining the scenic and visual quality of the receiving environment. Enabling these groups to access saplings and guidance ensures that planting is not limited to municipal or state-led initiatives, but can also take root in private gardens, holiday resorts, and community spaces where visual sensitivity is highest. Professional oversight is essential in this regard, as it ensures that voluntary planting is consistent with the objectives of visual mitigation and avoids inappropriate species choices or ineffective placement.

In short, the amended condition retains the goodwill principle of the original wording but strengthens its effectiveness by requiring the applicant to provide both saplings and professional guidance, actively advertise the opportunity to affected receptors, and integrate community-level planting into the broader mitigation strategy established under Condition 1.

6.3 Motivation for the amendment of Condition 3

Condition 3 is supported in principle but requires amendment to clarify its objectives and ensure effective implementation. As originally worded, it requires the revegetation of the dam fringe to reduce the scarring effect of fluctuating water levels. While the intent is valid, the original phrasing is overly general and does not reflect the complexity of the inundation and fringe zones or the practical requirements for their rehabilitation. Without clear guidance and specialist input, there is a risk that these visually sensitive margins will remain barren and eroded, creating long-term visual scars around the reservoir edge.

The amended wording therefore requires the applicant to appoint suitably qualified specialists—specifically a botanist and/or ecological restoration specialist with proven fynbos expertise—to compile a revegetation and rehabilitation plan for the inundation fringe zone. This ensures that ecological and visual objectives are addressed together and that measures are tailored to local conditions. The fluctuating shoreline is a dynamic zone where terrestrial vegetation dies off and aquatic or riparian species must colonise in its place; unmanaged, this process results in visually unattractive mudflats and erosion scars. Active rehabilitation can guide this natural succession toward a more continuous and integrated vegetative cover that reduces visual intrusion and enhances ecological function.

Findings from the desktop study and fieldwork confirm the need for this amendment. International precedents—including the Berg River Dam in South Africa, the Three Gorges Dam in China, and projects along the Colorado River in the USA—demonstrate that, although outcomes can be variable, with careful species selection and long-term management it is feasible to rehabilitate fluctuating water level margins for both ecological and visual benefit. Incorporating these lessons into a dedicated plan would address the original VIA's underestimation of this issue and align mitigation with current best practice.

The amended condition also introduces the requirement for measurable success criteria and adaptive management. Monitoring over time is necessary to ensure that revegetation efforts establish correctly, invasive alien plants are removed, and erosion is controlled. Importantly, from a visual perspective, the success criterion is not simply vegetation cover but the integration of the inundation edge with the surrounding fynbos landscape, ensuring landscape character continuity and reducing the perception of scarring.

In short, the amended condition strengthens the original intent by requiring specialist-led planning, site-appropriate species selection, and outcome-based monitoring. It recognises the inundation fringe as a highly dynamic but visually sensitive zone, and establishes a framework through which ecological rehabilitation can also deliver meaningful visual mitigation.

6.4 Motivation for the amendment of Condition 4

Condition 4 is supported in principle but requires amendment to ensure that rehabilitation measures are both comprehensive and enforceable. As originally worded, it requires a rehabilitation and restoration plan to address revegetation of disturbed areas, but the phrasing is too general and does not account for the true extent and scale of disturbance that has occurred since construction began. In practice, the disturbed footprint now extends well beyond the quarry, encompassing construction camps, haul roads, stockpile areas, and exposed cuttings, all of which contribute significantly to visual intrusion. If these areas are left unrehabilitated, the impacts will persist long after construction, undermining scenic quality and sense of place.

The amended condition therefore requires the applicant to appoint a specialist team—including a botanist, a registered landscape architect, and an ecological restoration specialist—to prepare and oversee a coordinated rehabilitation plan. This ensures that soil management, slope stabilisation, topsoil reinstatement, and indigenous species planting are specified in detail for each site condition. Progressive implementation during construction will further reduce the risk of long-term scarring, while plant-rescue measures allow bulbs, succulents, and other species to be re-established in disturbed areas and used to support enrichment planting in facilities such as Ramskop Nature Reserve.

Findings from fieldwork confirm the urgency of this approach. Figures 33–35 illustrate the scale of disturbance around the quarry, embankments, and road cuttings, all of which are visible from highly valued scenic areas including Ramskop Nature Reserve. The visual intrusion of these disturbed areas is now more significant than anticipated in the 2006 VIA, reinforcing the need for a binding plan that addresses both ecological recovery and visual outcomes.

Finally, the amended condition introduces clearer accountability. Rehabilitation must be outcome-based, with measurable success indicators—including visual impact considerations—supported by a monitoring programme of at least 3–5 years post-construction. Seasonal timing of interventions must be considered, and ring-fenced financial provision is required to secure long-term implementation.

These safeguards address common risks such as the premature termination of ECO mandates and the lack of custodianship once construction concludes, ensuring that rehabilitation commitments are carried through to completion.

In short, the amended condition transforms a general requirement into a comprehensive and enforceable framework. By mandating specialist oversight, progressive implementation, and outcome-based monitoring, it ensures that all disturbed areas are rehabilitated in a way that restores visual quality and reinforces the broader mitigation strategy for the Project.

7. Conclusion

This Visual Statement has reviewed the four visual conditions attached to the 2009 Record of Decision for the Clanwilliam Dam raising project. The review was undertaken through fieldwork, comparative analysis of the 2006 VIA and Heritage studies, and an updated understanding of the receiving environment. The purpose of this conclusion is to consolidate the findings of the study, to assess whether the conditions remain valid, and to set out appropriate amendments that respond to the realities of the Project as it has unfolded on the ground.

7.1 General Findings

The raised dam wall itself is not the primary source of visual intrusion in the receiving environment. While the 2006 VIA anticipated a medium level of visual impact with low to medium intrusion, fieldwork undertaken in 2025 confirms that receptors along the eastern shore generally do not find the wall face overwhelmingly negative. Instead, construction activities, the extended quarry, stockpiles, and associated facilities have proven to be considerably more intrusive and have persisted far longer than expected. Construction impacts originally regarded as temporary will extend in duration for more than 15 years, creating a de facto long-term visual effect that dominates the experience of receptors.

The omission of key receptor groups in the original VIA has further weakened the record of visual impact. Recreational users of the dam, visitors to Ramskop Nature Reserve, and residents of the informal settlement all have direct line of sight to Project activities, yet their sensitivities were not recognised in the original assessment. Elevated receptors, such as those at Crystal/Blue Waters and Clanwilliam Hills, overlook the treeline entirely, while lower receptors such as the municipal resort and chalets will lose valued shading and screening once mature trees are inundated. These omissions, together with the introduction of new visual elements such as the intake tower, demonstrate that the Project's actual visual profile differs in material ways from that anticipated in 2006.

Visual impacts are also closely intertwined with ecological and cultural landscape considerations. The loss of mature trees within the municipal resort represents not only a visual and amenity change but also a shift in sense of place. The rehabilitation of disturbed areas will need to consider both ecological recovery and the cultural landscape character of Clanwilliam Dam and its surrounds. The failure of the VIA to address the visual consequences of heritage losses (such as the submergence of the Ou Kaapse Weg and rock art sites) further illustrates the need for conditions that integrate visual, ecological, and heritage values.

Finally, there are important lessons regarding mitigation. Tree planting was recommended in 2006 but was never implemented at scale during construction. Newly planted trees require two to five years before they begin to provide screening, underscoring that earlier intervention would have been more effective. Rehabilitation success is often judged on ecological indicators, with little attention to visual outcomes. ECO mandates commonly lapse at the end of construction, leaving

long-term monitoring and custodianship unclear. Without enforceable provisions, there is a real risk that rehabilitation efforts will underperform, leaving permanent scars in the landscape.

7.2 Condition-specific Findings

Condition 1: The reference to "eastern shore" is too narrow, as sensitive receptors are spread across multiple vantage points, including Ramskop Nature Reserve, municipal resorts, residential estates, and the informal settlement. Construction activities and tree loss have proven more visually intrusive than the dam wall itself, requiring targeted planting at key public realm locations. The amendment ensures planting is professionally guided and focused where it will deliver meaningful mitigation.

Condition 2: As originally worded, implementation relies solely on voluntary uptake, making outcomes uncertain. The amendment strengthens the condition by requiring the applicant to make saplings and professional planting guidance available, and to actively advertise this opportunity to affected receptors. This enables households and community facilities to supplement formal mitigation under Condition 1 in a coordinated and effective manner.

Condition 3: The inundation fringe is a highly dynamic and visually sensitive zone where unmanaged die-off and erosion would create long-term scarring. The amendment requires a specialist-led plan using site-appropriate indigenous and endemic species, with outcome-based monitoring and adaptive management. This ensures the fringe integrates visually with the surrounding fynbos landscape and delivers both ecological and scenic benefits.

Condition 4: The original wording is too general and does not reflect the true scale of disturbance caused by quarrying, stockpiling, roads, and construction camps. The amendment requires a comprehensive rehabilitation plan prepared by a multi-disciplinary team, with progressive implementation, plant rescue, outcome-based success criteria, and post-construction monitoring. These measures ensure all disturbed areas are rehabilitated effectively, securing long-term restoration of visual quality.

7.3 Overarching Recommendations

Taken together, the review confirms that the conditions remain valid in principle but require amendment to reflect the actual scale, duration, and profile of impacts. The amendments place greater emphasis on professional oversight, outcome-based success criteria, and enforceability, ensuring that mitigation is credible and not left to voluntary uptake or delayed until the end of construction.

The conditions also function as a complementary set. Condition 1 secures planting at key public realm sites where it is most effective, while Condition 2 enables households and community members to participate in mitigation through access to saplings and guidance. Condition 3 addresses the dynamic inundation fringe, ensuring that its visual scarring is reduced through specialist-led revegetation. Condition 4 provides the overarching rehabilitation framework, binding the applicant to restore disturbed areas at landscape scale, with financial provision and monitoring to ensure accountability.

By correcting omissions in the original VIA—such as the role of recreational users, Ramskop Nature Reserve, and the informal settlement—and by integrating ecological, heritage, and cultural landscape considerations, the amended conditions provide a more complete and defensible basis

for visual mitigation. Opportunities such as plant rescue and enrichment of Ramskop Nature Reserve also demonstrate that mitigation can deliver positive community and ecological benefits beyond simple rehabilitation.

7.4 Closing Statement

In conclusion, the four conditions should be retained and amended rather than removed. The amendments strengthen the Record of Decision, ensuring that visual impacts are addressed in a manner that is enforceable, professionally guided, and sensitive to the receiving environment. If implemented with diligence and long-term commitment, these measures will enable the Project to integrate more effectively with its landscape setting, restore visual quality, and safeguard the scenic and cultural resources that are of clear value to residents, visitors, and the local economy.

Please do not hesitate to contact me should you have any queries or wish to discuss the findings of the Visual Statement[5].

With Kindest Regards

Fi Smit
Professional Landscape Architect SACLAP # 20245
Director, Rain Bull (Pty) Ltd trading as Filia Visual

[5] This document was prepared by Fione Smit, with the support of OpenAI's ChatGPT, an AI tool used for drafting, formatting, and technical synthesis. All content has been reviewed, curated, and approved by the author.

8. Works Cited

Bao, Z. G. (2015). *Ecological restoration of riparian vegetation in the water level fluctuation zone of the Three Gorges Reservoir.* Ecological Engineering. Retrieved from https://pegao.expressions.syr.edu/wp-content/uploads/baoetalESR2015.pdf

Bureau of Land Management. (2025). *BLM's Visual Resource Inventory*. Retrieved from Bureau of Land Management Visual Resources: https://blmwyomingvisual.anl.gov/vr-inventory/blm/#:~:text=Scenic%20Quality%20Rating,-Within%20the%20VRI&text=The%20ratings%20are%20made%20in,the%20lowest%20scenic%20value%20ratings.

CapeNature Scientific Services Land Use Team. (2017). *Western Cape Biodiversity Spatial Plan Handbook.*

Cederberg Municipality. (2023). *Spatial Development Framework 2023 - 2027.*

City of Cape Town. (2003). *Scenic Drive Network Management Plan .*

Department of Environmental Affairs and Tourism. (2002). *Scoping, Integrated Environmental Management, Information Series 2.*

GCDAMP (Glen Canyon Dam Adaptive Management Program). (n.d.). *Riparian vegetation.* Retrieved August 25, 2025, from https://gcdamp.com/index.php/Riparian_Vegetation

Heritage Western Cape. (2016). *Grading: Purpose and Management Implications.* Cape Town: HWC Council.

iKapa Enviroplan. (2009). *Rural Land Use Planning & Management Guidelines.* Western Cape Government.

Li, W. H. (2016). *Soil seed banks and their role in vegetation recovery in the drawdown zone of the Three Gorges Reservoir, China.* PLoS ONE. Retrieved from https://doi.org/10.1371/journal.pone.0162867

National Park Service. (2000). *Monitoring of Glen Canyon riparian vegetation.* Technical Memorandum 2-A14. Retrieved from https://npshistory.com/publications/geology/tm/2-a14.pdf

Norberg-Schulz, C. (1979). *Genius Loci: Towards a Phenomenology of Architecture.* New York: Rizzoli.

Oberholzer, B. (2005). *DEA&DP Guideline for Involving Visual and Aesthetic Specialists in EIA processes.* Provincial Government of the Western Cape, Department of Environmental Affairs and Development Planning.

Oberholzer, B., & Winter, S. (2013). *Heritage and Scenic Resources: Inventory and Policy Framework.*

SFGATE. (2024). *After dam removal, Klamath River explodes with wildflowers planted by tribes.* Retrieved from https://www.sfgate.com/bayarea/article/klamath-river-wildflowers-20320792.php

South African National Biodiversity Institute. (2006-2018). *The Vegetation Map of South Africa, Lesotho and Swaziland.* (L. R. Mucina, Ed.)

Stellenbosch Heritage Foundation. (2018). *Cape winelands Heitage Survey Phase 3 and 4: Conservation Management Plan.* Stellenbosch Municipality.

U.S. Geological Survey. (n.d.). *Glen Canyon Dam Adaptive Management Program: Riparian vegetation monitoring.* Southwest Biological Science Center. Retrieved from https://www.usgs.gov/centers/southwest-biological-science-center/science/glen-canyon-dam-adaptive-management-program

Western Cape Government. (2002). *Guideline for the Management of Development on Mountains, Hills and Ridges of the Western Cape.* EIA Guideline Series, Directorate: Environmental Management.

Wikipedia. (2025). *Restoration of the Elwha River.* Retrieved from https://en.wikipedia.org/wiki/Restoration_of_the_Elwha_River

Wikipedia. (2025). *Riparian-zone restoration.* Retrieved from https://en.wikipedia.org/wiki/Riparian-zone_restoration

Yiran, Z. (2009). *Pieces of Time and Perception of Place - From the view of Genius Loci and Contextualism.* Blekinge Institute of Technology .

ANNEXURE A

CONSOLIDATED MITIGATION MEASURES

The following list consolidates all mitigation measures identified or recommended in this Visual Statement. Measures are grouped by theme for ease of reference, with page and figure numbers provided to enable direct cross-referencing to the report.

1. Tree Planting and Vegetation Screening

i. Planting of trees at key public realm locations around the dam to screen disturbances and provide visual mitigation for sensitive receptors (Cond. 1) (pp. 15–16, Figs. 28–29).
ii. Localised planting in elevated receptor areas (e.g. Crystal/Blue Waters, Clanwilliam Hills) rather than only on the eastern shore (pp. 16–17, Fig. 30).
iii. Tree planting guided by a registered landscape architect for species selection, placement, and establishment specifications (p. 15).
iv. Applicant to provide saplings and planting guidance to landowners and community members who wish to supplement mitigation (Cond. 2) (p. 15).
v. Active advertisement of sapling availability through municipal notices, community meetings, or targeted outreach (Cond. 2) (p. 15).
vi. Recognition that newly planted trees take 2–5 years to establish screening; therefore, planting must not be delayed (p. 16). Proverbial emphasis: “The best time to plant a tree was twenty years ago; the second-best time is now” (p. 16).

2. Inundation Fringe Management

i. Specialist-led revegetation of the inundation fringe using indigenous/endemic aquatic and riparian species capable of tolerating seasonal wet–dry cycles (Cond. 3) (pp. 18–19, Fig. 32).
ii. Integration of fringe planting with surrounding fynbos vegetation to reduce visual scarring (p. 19).
iii. Erosion management and alien vegetation control as dual ecological–visual mitigation measures (p. 19).
iv. Long-term monitoring and adaptive management to ensure effective establishment of fringe vegetation (p. 19).
v. International precedents (Berg River Dam, Three Gorges Dam, Colorado River projects) show feasibility of large-scale inundation-edge rehabilitation with careful species selection (pp. 18–19).

3. Rehabilitation of Disturbed Areas

i. Preparation and implementation of a comprehensive Environmental Rehabilitation and Restoration Plan (Cond. 4) (pp. 20–23, Figs. 33–35).
ii. Rehabilitation to cover all disturbed areas outside the inundation zone, including quarry, crusher plant, stockpiles, construction camps, haul roads, embankments, and cuttings (pp. 20–21, Figs. 33–35).
iii. Progressive rehabilitation during construction rather than postponement until project close (pp. 20–21).
iv. Regrading of cut and fill slopes to stable profiles that mimic natural landforms (p. 21).

v. Reinstatement of topsoil after grading, with sustainable sourcing where stockpiles and topsoil harvest and stockpiling methods are inadequate (p. 21).
vi. Revegetation with indigenous and endemic species suited to site-specific conditions (soil, slope, aspect, elevation) (pp. 21–22).
vii. Rehabilitation plans informed by a multi-disciplinary team (botanical specialist, registered landscape architect, ecological restoration specialist) (p. 21).
viii. Plant rescue (bulbs, succulents, other species) for replanting in disturbed areas and enrichment of Ramskop Nature Reserve (pp. 23).
ix. Alignment of rehabilitation interventions with seasonal growth cycles and rainfall patterns (p. 22).
x. Outcome-based success criteria, including visual quality benchmarks in addition to ecological indicators (pp. 21–22).
xi. Monitoring and reporting programme extending 3–5 years post-construction, undertaken by qualified specialists (pp. 21–22).
xii. Ring-fenced financial provision to secure long-term implementation and prevent abandonment of commitments after construction (p. 22).
xiii. Partnerships with Ramskop Nature Reserve to integrate rescued plants and strengthen the project's community legacy (p. 23).

4. Tree Management in Inundation Zone

i. Mature trees in the municipal resort and shoreline areas to be felled prior to inundation to prevent negative visual impacts of drowned/decaying trunks (pp. 18–19, Fig. 31).
ii. Felled trees to be chipped or mulched for reuse, reducing both visual impact and safety hazards such as floating debris (p. 18).

5. Additional Safeguards and Governance

i. Professional oversight (landscape architect involvement) in drafting rehabilitation plans and participating in post-construction reporting (p. 22).
ii. ECO mandates to extend beyond construction to ensure custodianship of long-term rehabilitation monitoring (p. 22).
iii. Explicit penalties or reporting obligations to avoid the common risk of incomplete or poorly enforced rehabilitation (p. 22).

ANNEXURE B

DETAILS AND EXPERIENCE OF THE VISUAL SPECIALIST (CV)

Name:	Fioné (Fi) Smit
Qualification:	▪ Bachelor of Science in Landscape Architecture *(BSc.LArch, University of Pretoria, 2011)* ▪ Master of Landscape Architecture *(MLA, University of Cape Town, 2017)*
Professional registration:	Professional Landscape Architect - registered with the South African Council for the Landscape Architectural Profession (SACLAP #20245)
Track record:	Fi is a Western Cape based Landscape Architect specializing in Visual Impact Assessment. Her 10 years of experience in the industry has seen her take up a variety of roles as a Landscape Architectural Technologist, Professional Landscape Architect, Postgraduate Lecturer, and finally as Director of Filia Visual, under whose name she practices as an independent Visual Impact Assessment consultant. ● She obtained her BSc in Landscape Architecture from the University of Pretoria in 2011, beginning her career at Newtown Landscape Architects (NLA) under the mentorship of Graham Young and Johan Barnard in 2012. ● She obtained professional registration from SACLAP in 2014 while under the mentorship of Francois van Rooyen of Red Landscape Architects. ● Fi graduated from the UCT Master of Landscape Architecture (MLA) program in 2017. ● She was employed by Viridian Consulting Landscape Architects under the mentorship of Rene Maria Brett from 2018 - 2020. ● In 2019, she began consulting independently in addition to her work in partnership with Viridian, which included Visual studies and VIAs, as well as co-convening the Landscape Architectural Professional Practice course and the History & Theory of Landscape Architecture course at UCT for Honours and Masters Students. In 2020, Filia Visual (Pty) Ltd* was registered, and has established a reputation amongst colleagues and clients for thorough, fair and defensible Visual studies and Impact Assessments.
Experience and associations:	Fi worked under the mentorship of Graham Young, Yonanda Martin and Mitha Cilliers conducting Visual Impact Assessments for NLA from 2012 – 2013. While consulting independently for Viridian Consulting, she again undertook Visual studies and related specialist work. Fi is registered with SACLAP, and is a member of ILASA and IAIASA. Under Filia Visual's banner, Fi's professional associates and regular collaborators include Karen Hansen (Independent

	Consultant & Landscape Architect) and Liana Jansen (Landscape Architect & Heritage Practitioner, director of Cape Winelands Professional Practices in Association) and Rene Maria Brett (Landscape Architect and Urban Designer, director of Viridian Consulting Landscape Architects) ● *(*Now named Rain Bull (Pty) Ltd, Fi still trades as Filia Visual.)*
Projects	Fi has experience in authoring and co-authoring a wide range of Visual studies and reports as a specialist consultant. These include Pre-application Visual Studies, Visual Statements, Screening, Baseline & Scoping reports and Visual Impact Assessments. Please note that some of the below listed projects are ongoing and should be treated with confidentiality (ongoing projects indicated *in italics*). **2011 – 2012: Newtown Landscape Architects** VIA work under NLA included site visits, EIA specialist meeting inputs, documentation of landscape quality, character, value and visual resource value etc. (according to NLA procedure and visual study theory developed by Graham Young); draft and final Baseline and Visual Assessment report writing, preparation and creation of Visual Impact Simulations. These VIA's were predominantly for mines, solar farms and other large-scale infrastructure in the northern provinces of South Africa, including: ● Congo saltwater purification plant ● KiPower Independent Power Plant ● Paardeplaats Coal mine ● Mafikeng Cement factory ● Grootvlei mine ● Vlakplaats Solar park ● Vosloorus residential development ● Skukuza solar Park ● Sintokoula Coal mine ● Kinsenda Coal mine ● Zandkopsdrift minerals mine ● Gamsberg Mine **2018 – 2020: Viridian Consulting Landscape Architects & Independent consulting** ● Railway Mews (Visual Statement for proposed Social Housing development, Stellenbsoch, 2019) ● Helderberg Integrated Waste Management Facility (Visual statement, development of mitigation measures and Simulations, City of Cape Town Solid Waste Management, 2019) ● Tannery Park Visual Study (pre-application Visual study (detailed, including simulations), Rawson Property Group, 2018 – 2020) ● Ronsyn Visual Study (pre-application Visual study (detailed, including simulations), FPG Property Group, 2018 – 2020) ● Stellenbosch Municipality Heritage Inventory and Conservation Management Plan (Mapping and Viewshed analysis of Scenic routes

commissioned by the Cape Winelands Professional Practices in Association, 2018)

- UCT North Stop (3D modeling and graphic renderings/simulations of proposed new North Bus stop and Landscape Proposal, UCT, 2020)

2020 – present: Filia Visual

- Rhinos High Performance Sport Centre, Strand (VIA, Rhinos Sports Academy, 2020)
- Sudor Coal Mine Ext. and proposed Overlooked Colliery, Mpumalanga (VIA, NTC Group, 2020 – 2023)
- Schrywershoek residential development, West Coast National Park (VIA, Wiehahn International Holdings (Pty) Ltd., 2021)
- Proposed Diamant Development, Paarl (VIA, Lazercor Developments, 2020)
- Fijnbosch/Botmaskop Estate, Stellenbosch (Scoping Report and Visual specialist consultation, Reset Properties, 2020 - 2023)
- 115 Victoria Road, Camps Bay (VIA, The I-Group, 2020)
- Proposed development at Keurboomstrand, Keurboomstrand (VIA, Rust van der Merwe, 2020)
- Eskom Kimberley Strengthening Phase 3: Transmission Corridors, Northern Cape and Northwest Province (GIS Sensitivity Mapping and Feasibility Report, Margen Industrial Services, 2021)
- Proposed development at De Hoop Farm, Tulbagh (Visual Statement, Guillaume Nel Environmental Consultants, 2021)
- Groot Phesantekraal Phase 5, Durbanville (VIA, Abland Property, 2021)
- Proposed Ronsyn Building, Rondebosch (Visual specialist consultation, Simulations and graphics supporting appeal, FPG Property Group, 2021)
- Sonlia Fruit Packhouse (Visual Statement, FRAME Engineers, 2021)
- Stanhope BMW (Visual Study, Rawson Property Group, 2021 – 2022)
- Hermanus Cliff Path Connection (Visual Statement, Cliff Path Action Group, 2021)
- Ptn 43 of Farm 159 Meerendal, Canto Wine Estate, Durbanville (Visual Statement and VIA, Canto wines, 2021 – 2022)
- Strawberry Lane, Schumacher development (Visual Statement, Schumacher Real Estate (Pty) Ltd, 2021-2023)
- Proposed development at Farm 845 Sir Lowry's Pass (VIA, DaxCon, 2021)
- Proposed McMillan Bricks development, Paarl (VIA, Guillaume Nel Environmental Consultants, 2021 – 2022)
- Proposed development Erf 2111, Riebeek Kasteel (VIA, Guillaume Nel Environmental Consultants, 2021 -2022)
- Proposed development at Philippi (Visual Statement, Headland Town Planners, 2021)
- 236 Main Road, Kalk Bay (Visual Statement, Shalev Trust, 2021)
- Proposed Libertas development, Stellenbosch (Visual Statement, Reset Properties, 2021 - 2022)
- Alto Wine Estate, Stellenbosch (Visual Statement and VIA, Alto Wine Estate, 2022)
- Heuningberg Estate, Bredasdorp (VIA, Clearlake Capital, 2022)

	● Avec La Terre Residential Development, Paarl (VIA, Future Megawatt, 2022 – 2023) ● Willets Hotel, Simon's Town (Visual specialist input and Simulations, Watercolours Holdings, 2023) ● Norval Foundation, Constantia (Visual Statement, The Village Trust, 2023) ● Proposed Development of Sugarbush Eco-cabins, Cederberg (VIA, Sean Moolman, 2023) ● *Stellenbosch R310 Billboard, Stellenbosch (VS, Punch Media (Pty) Ltd, 2022 - ongoing)* ● *Paul Roos Billboard, Stellenbosch (VS, Punch Media (Pty) Ltd, 2022 - ongoing)* ● *Proposed development Erf 878, Riebeek Kasteel (VIA, Silver Solutions 3571, 2021 – ongoing)* ● *Proposed Libertas Development (Visual Statement and ongoing Visual specialist consultation, Fleurbaai (Pty) Ltd, 2021 – ongoing)* ● *Proposed development at 35 & 37 Victoria Road (VIA, The Castle Group, 2021 – ongoing)* ● *Farm 1252 Bo Helderberg (Screening and site sensitivity report and VIA, Arch Town Planners, 2021 – ongoing)* ● *Cape Winelands Airport (Scoping report and VIA, PHS Consulting, 2021 – ongoing)* ● *Graanendal Filling Station, Durbanville (VS, GNEC, 2022 – ongoing)* ● *Proposed Development at Meerlust, Farm 1006, Simondium (VIA, R45 Trust, 2022 – ongoing)* ● *Proposed Development at Farm 815, Paarl (VIA, Engen Petroleum Ltd, 2023 – ongoing)* ● *Avatar Aviation Estate, Erf 898, Still Bay (GNEC, 2023 – ongoing)* ● *Proposed Development of Portions 1,2,20 and 73 of Farm Gansvallei 444, Plettenberg Bay (Sky Development) (VIA, RE1444 (Pty) Ltd, 2024 – ongoing)* ● *Tourist Accommodation on Farm 146, Omklaar, Riviersonderend (FOOTPrint Environmental services, 2024 – ongoing)*

ANNEXURE C

STATEMENT OF INDEPENDENCE AND DISCLAIMER

The author hereby declares that they act as an independent specialist in this matter, performing the related work in an objective manner, even if this results in views and findings that are not favourable to interested parties. Neither Filia Visual, nor any of the authors of this report, have any personal or financial interest vested in the outcome of this Project that could reasonably affect their independence. Filia Visual has no beneficial interest in the outcome of the assessment which is capable of affecting its independence, and it should be noted that Filia Visual does not have any interest in secondary or downstream applications that may arise from the granting of the application and proposed development. The opinions, views and findings of Filia Visual, contained in this report, are based on information supplied by the Client and professional Project Team. The author has exercised all due care and diligence in reviewing the project information supplied at the time of the writing of this report, however conclusions from the review remain reliant on the accuracy and completeness of the data and project information supplied. Filia Visual cannot accept responsibility for errors or omissions in the supplied information, and does not accept any consequential liability arising from commercial decisions or actions resulting therefrom. Filia Visual accepts no liability or responsibility whatsoever in respect of any use of or reliance upon this report by any third party. The findings of this report reflect the site conditions, proposed development and existing Receiving Environment features at the time of the assessment, as well as those that are reasonably foreseeable, and excludes conditions and features that present afterwards.

EXPERIENCE AND COMPLIANCE

The report author, Fioné Smit, has been appointed to prepare this report, acting on behalf of Filia Visual. She has expertise in producing specialist reports relevant to this matter, including knowledge of regulations and guidelines that have relevance to the proposed activities. She is a SACLAP registered Landscape Architect, a member of ILASA, and an Independent Visual studies practitioner. Filia Visual and its representatives will comply with the appropriate Acts, regulations and all other applicable legislation, undertaking to disclose to interested parties and the competent authority (CA) all material information in its possession that reasonably has or may have the potential of influencing any decision to be taken with respect to these matters by the CA; and the objectivity of any report, plan or document to be prepared.

DECLARATION

This specialist report has been prepared for Zitholele Consulting on behalf of their client and is subject to and issued in accordance with the agreement between these parties. The author herewith confirms the correctness of the information provided in this report, including supporting documents.

Fioné Smit
Director, Rain Bull (Pty) Ltd t/a Filia Visual