4.5
ERF 1068, STANFORD, OVERSTRAND MUNICIPAL AREA: PROPOSED CONSENT USE: MESSRS SETTLEMENT PLANNING SERVICES (WESTERN CAPE) T/A SETPLAN CC ON BEHALF OF THE RICHARD METCALF FAMILY TRUST

Erf 1068 SSS (2758)
P Roux (028) 313 8900 Hermanus Administration
3 September 2019

1. EXECUTIVE SUMMARY

An application was received on 8 November 2018 from Messrs Setplan CC on behalf of the owners of Erf 1068, Stanford, The Richard Metcalf Family Trust, for a consent use in terms of Sections 16(2)(h) to amend the conditions of an existing approval to permit the extension of hard rock mining.

The Locality Plan of the property concerned is attached as Annexure A, the Motivation Report from the applicant in support of the application is attached as Annexure B and the Site Development Plan (SDP) is attached as Annexure C.

2. DECISION AUTHORITY

Municipal Planning Tribunal

3. BACKGROUND / SITE HISTORY

Erf 1068 is situated outside of Stanford next to the R43 between Stanford and Hermanus. The property is zoned for agricultural use and is currently being used for hard rock mining and farming activities. A land use application to regularise the existing mining activities was submitted in 2016 and approved in April 2018. Subsequent to the approval the managing agent of the mine started to take steps in order to comply with the land use conditions. In the motivation which served before the Municipal Planning Tribunal (MPT), it was stated that the estimated life of the existing mine is approximately three (3) years from May 2017 and a condition of approval was stipulated to that effect. Further, the existing mining activities were limited to the extent of the application area as determined on the SDP.

With a growing demand for hard rock in the Overstrand area and the reconstruction of the R43 (Hermanus, Gansbaai road) the managing agent of the mine, Afrimat Aggregates (Operations) (Pty) Ltd, a subsidiary of Afrimat (Pty) Ltd, made application to extend the mining right area eastward. In terms of Section 102 of the Mineral and Petroleum Resources Development Act (MPRDA) and the National Environmental Management Act (Act 107 of 1998)(NEMA) authorisation was received. Prior to extending the life span of the existing mining activity and to extend the mining area eastward the land use application must first be approved, therefore the applicant applied for the amendment of the following conditions:

2.(b) that an updated 2018 Site Development Plan for the mining area be submitted for approval to the satisfaction of the Senior Manager: Town and Spatial Planning;

3.(a) that approval is only for the continued use of the mine to a maximum of three (3) years or life of the mine, the most restrictive will be applicable;

3.(b) that the mining area and the excavation area on Erf 1068 be limited to the 2011 Updated Mine Layout Plan: Mine Site Development Plan and as submitted with the application;

4. SUMMARY OF APPLICANT'S MOTIVATION

Due to the comprehensiveness of the Motivation Report, only the main points of motivation are conveyed as follows (the detailed Motivation Report and accompanied information is attached as Annexure B):

a) Application is made for the amendment of conditions 2.(b), 3.(a) and 3.(b) as stated in the decision letter dated 10 April 2018.
b) The amendments are proposed as follows:

- Condition 2(b):
  that a Revised Mine Site Development Plan (2018) for the existing and extension mining area be submitted for approval to the satisfaction of the Senior Manager: Town and Spatial Planning;
- Condition 3(a):
  that the approval of the continued use of the mine (existing and extension) is for the life of the extended mine; and
- Condition 3(b):
  that the Mining Right Area (existing and extension) and the Excavation Area (existing and extension) on Erf 1068 be limited to the 2018 Revised Mine Site Development Plan and as submitted with the application.

c) Site Description

- Figure 4 in the motivation depicts the spatial extent (i.e. 24.8 ha) of the existing 2018 Consent Use Area and Mine SDP, as well as the proposed Extension of the Mine SDP (i.e. 9.755 ha). It should be noted that although the mining right area extends over the boundary of Erf 1068 to a portion of Erf 1069, the proposed Mine SDP will be limited to Erf 1068. This restricts the excavation area to the 2,55 ha on Erf 1068 and that the area between Erf 1068 and the boundary of Erf 1069 boundary be set out as the "no-go" area in terms of the Environmental Impact Assessment Report (EIAr)/Environmental Management Program (EMPr) and the Environmental Authorization (EA).
- It is proposed that the SDP for the mining extension be limited to 9,0342 ha and the excavation area will be limited to 2,5 ha.
- The closest point of the excavation area will be situated 75,3m from the boundary of Erf 1069.
- Erf 1068 measures 410,7342 ha.
- Erf 1068 is used for agricultural use (i.e livestock grazing and vegetable cultivation) and with a portion demarcated for the Mining Right area.
- The mining right area includes the rehabilitated scree mined area, the existing logistical facility area, weighbridge and existing processing plant, with current excavation area.
- The proposed extension on Erf 1068 as shown is vacant with natural veld.
- The mining activity includes drilling and blasting of the western face of the eastern mountain spur, crushing the shot rock and temporary storage of the crushed rock before transportation.

d) The proposed eastward mining extension will take place in four (4) phases:

- **Phase 1a Establishment Phase (Phase 1a of extension) includes**
  - *retain and upgrade existing haul road to bench 205m;*
  - *maintaining the current totally inward draining system for the entire excavation site;*
  - *upgrade and maintain stormwater management channels and ponds;*
  - *continue to mine bench 205m for hard rock;*
  - *split south haul road from bench 205m to bench 210m and as establishment phase ring haul road for Phase 1b bench establishment;*
  - *remove 300mm topsoil from Phase 1 extension area.*

- **Phase 1b Bench Development**
  - *development of benches at levels 230m, 225m, and 220m with 5m faces in soft weathered material;*
  - *210m with 10m face to begin to enable advance of bench 205m in clean fresh rock below 210m;*
  - *develop perimeter haul road for phase 2 extension.*

- **Phase 2a Bench Development**
  - *given the total topographical distance and the implications for haul road development, the mine plan depends total on maintaining the existing haul road and established haul road to the serve the mining and hauling of the material from each of the benches in a strictly top-down sequence (without exception together with its top-down mining, strict enforcement of the rehabilitation of each bench before the end of its mining must take place) again on a top-down basis in order to ensure that the upper mining bowl is rehabilitated progressively prior to loss of haul road stability by premature lower bench development;*
  - *develop benches at 5m face heights at bench level 240m, 235m, 230m and 225m and at 10m face heights at bench levels 215m, 205m and 195m;*
  - *advance benches levels 235m to 195m to final perimeters;*
  - *Phase 2a benches to be developed from top down with simultaneous rehabilitation of each final face and bench as they progress downwards, leaving the final benches and faces above level 195 fully rehabilitated by end of phase 2a.*

- **Phase 2b deepening of the total excavation**
  - *The establishment of benches at 10m interval from top down from 195m to 145m.*

e) The rehabilitation of Phase 2a upper faces could occur as early as year 7, but a more conservative year 12 is assumed in this report. Whichever is the case, the rehabilitation of the upper 1:3 slope and the benches above level 225m in the north-east and south-east must take place as soon as they are ready for rehabilitation.

f) The mining activities have been in operation since licencing in 1996 (i.e. for the past 23 years).

g) Environmental approval includes:
- licensing to mine scree slope in 1996;
- in 2002 an Environmental Management Programme Report (EMPR) was compiled for rehabilitation of the scree mining area and for the proposed mining of the hard rock;
- in 2011 a Conversion of the Mining Right was applied for and approved in 2012. In the same year the EMPR was updated which was used between 2012 to 2016, and
- 10 October 2017 for an extension of the existing Mining Right Area. Such Mining Right Extension included an approved Environmental Authorisation.

h) The Stanford Quarry supported the construction industry in the Overstrand Area for the past 23 years – alternative material being Villiersdorp and Grabouw.

i) Little to no objections in the time of operation.

j) Currently the Stanford Quarry has been developed to approximately 99% of its permissible excavation footprint. Due to high demand in the building sector it is proposed to extend the mine eastward.

k) The applicant states that the above demonstrates a long-standing, regionally recognised and compliant land use.

l) The applicant specifies how the mining activity will be managed including rehabilitation plans, decommission and post-mining land use.

m) Access will be maintained from +-km20,36 off Trunk Road 28/2 and engineering services, hard surfacing of the intersection will be done to coincide with the upgrading of the R43.

n) The applicant also provides a list of comments which was received prior to the application's submission and the applicant sought to address the comments throughout the Motivation Report.

o) The applicant motivates that the application is desirable in terms of the following criteria:
- consistency with the Overstrand Municipality Policies (Spatial Development Framework [SDF] and Integrated Development Framework [IDF]);
- Zoning Scheme Regulations;
- current mining operations as per the EMP include mitigation measures to address impacts on biodiversity, water resources, visual impact, noise, etc.;
- economic, social impact;
- traffic impact, and
- compliance with Overstrand Town and Spatial Planning and Environmental Division application requirements.

5. ADMINISTRATIVE COMPLIANCE

Methods of advertising		Date published	Closing date for comments
Notices	Yes	8/02/2019	15/03/2019

Ward councillor	Yes	8/02/2019	15/03/2019
Advertised	Yes	7/02/2019	15/03/2019
Total letters of objection	**Two (2) letters** received from Cape Nature and Stanford Heritage Committee/Stanford Conservation Trust. Both objections have been withdrawn after consultation with the applicant.		
Was public participation undertaken in accordance with Section 46 – 50 of the By-Law on Municipal Land Use Planning?			**Yes**
Was the application processed correctly (if no, elaborate below):			**Yes**
Is the proposal consistent with the principles referred to in Chapter 2 of SPLUMA and Chapter VI of LUPA? (can be elaborated further below)			**Yes**

6. SUMMARY OF COMMENTS FROM ORGANS OF STATE AND/OR MUNICIPAL DEPARTMENTS

Name	**Date received**	**Summary of comments**	**Recommendation**
Electro Technical Services	11/02/2019	Eskom distribution area.	Supported
Eskom	25/02/2019	Annexure F.	Supported
Fire Services	28/02/2019	No objection.	Supported
Department of Environmental Affairs and Development Planning: Development Management	6/03/2019	Annexure G.	Supported
Environmental Services	19/03/2019	No listed activities. The applicant must comply with the approved EA by DEA&DP.	Supported
Department of Transport and Public Works	26/03/2019	Annexure H.	Supported
Building Department	29/03/2019	No objection.	Supported
Department of Environmental Affairs and Development Planning: Environmental Impact Management Services	14/05/2019	Annexure I.	Supported
CapeNature	23/05/2019 and 27/06/2019	Annexure J and L.	Supported

Agriculture (Provincial)	30/05/2019	No comment.	Supported
Services Report	31/05/2019	Annexure M.	Supported

7. SUMMARY OF COMMENTS RECEIVED DURING PUBLIC PARTICIPATION

Two (2) objections were received against the application. The objections were submitted by Stanford Heritage Committee (SHC)/Stanford Conservation Trust (SCT) and CapeNature, subsequent to receiving the objections the applicant was notified. The applicant consulted with the two (2) objecting parties. After having received the relevant information and having due regard for the information both objecting parties withdrew their objections, subject to conditions.

The conditions received form SHC/SCT dated 16 April 2019 is summarised as follows:

The Stanford Conservation Trust (SCT) withdraws its objection dated 14 March 2019 and wishes to be presented on the quarry Environmental Monitoring Committee (EMC), and to receive all minutes from the monthly meetings.

Applicant's comment

The applicant endorses that the proposed conditions of approval be included in the decision in the event of a favourable application outcome, including:

- A quarry extension Environmental Monitoring Committee (EMC) convened by Afrimat be put in place, with the members of the SCT and SHC being invited to serve on such committee and members to receive all minutes from the monthly meetings of such committee. Such committee would also monitor the Rehabilitation Programme of both the extension and existing quarry.
- An Environmental Control Officer (ECO) will be appointed by Afrimat to monitor all aspects of mining and rehabilitation at the Stanford Quarry in terms of the EMPr.

The conditions received from CapeNature dated 27 June 2019 is summarised as follows:

The rehabilitation of the site is described in the Environmental Management Plan (EMPr) and Closure Plan to which CapeNature agrees to in principle. Another outcome of the meeting (between the consultant and the objectors) was that Cape Nature should be represented on the existing Environmental Monitoring Committee (EMC) for the mining activities on site. Although the EMC is a requirement of the NEMA/MPRDA approval, the EMC can also be a condition of approval in terms of the land use approval.

The EMPr stipulates that the EMC must meet annually; this is too infrequent in order to address concerns that arise. CapeNature recommends that it take place at least quarterly and that the Overstrand Municipality, Breede Gouritz Catchment Management Agency, Klein Rivier Estuary Forum, DEA&DP and CapeNature be represented at the meetings. At the EMC the rehabilitation of both the existing and proposed extension to the mining activities must be a standing item. The EMC must

have the authority to issue stop works order should there be any significant non-compliance until such concern has been addressed.

Due consideration was made regarding the urgency of the application and that the material from the mine will be used for the upgrading of the R43. CapeNature is willing to remove their objection subject to the following conditions be included in the conditions of approval:

- that the measures included in the EMPr, Closure Plan and Conditions of Approval amendment be strictly implemented. In particular Section 7: Impact Management Action of the EMPr must be implemented;
- an EMC must be constituted which must adhere to the provision described above;
- CapeNature must be a member of the EMC;
- an independent ECO must be appointed in order to monitor compliance with the EMPr and all other relevant documentation. Site visits must be conducted once a week as a minimum. The ECO should chair the EMC meeting and detailed compliance reports should be compiled for each EMC meeting;
- should any species of conservation concern be encountered during search and rescue, CapeNature should be consulted regarding the way forward;
- the recommendations of the Freshwater Ecosystems Impact Assessment Report must be implemented. This includes the water quality monitoring of the watercourse, however, CapeNature recommend that there should be an additional monitoring point where the watercourse enters the estuary.

Applicant's comment

The applicant forwarded the revised comments to the Town and Spatial Planning Department and did not object to the conditions stated by CapeNature.

Town Planner's comment

The proposed conditions complied by the two (2) objecting parties is noted by the Town and Spatial Planning Department. It is further noted that the applicant does not object to the proposed conditions as it was discussed with the representatives of the objecting parties at the meeting held on 11 April 2019.

Both the objecting parties' conditions relate to the establishment of an EMC at the mine. This is an important subject as the role of the EMC is to facilitate and manage the ongoing rehabilitation of the mine while monitoring the effect of the mine on the environment and address the concerns of affected parties. The EMC can therefore be considered in line with the mining policy contained in the Overstrand Spatial Development Framework as it stipulates that rehabilitation must occur simultaneously with the mining activity. The establishment of the EMC can therefore be stipulated as a condition in the decision irrespective whether the application is approved or not. However, the conditions made by CapeNature regarding the EMC will not be incorporated verbatim as the opinion is held that at the first meeting of the EMC the committee must decide how it will structure its members and in what increments it will hold meetings. It stands to reason that affected and interested parties must be invited to the meetings of the EMC in order for the committee to full fill its role.

8. MUNICIPAL ASSESSMENT OF COMMENTS

Same as 7 above.

9. MUNICIPAL PLANNING EVALUATION (REFER TO RELEVANT CONSIDERATIONS GUIDELINE)

9.1 (In)consistency with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)

The (in)consistency of the application with regards to the planning principles, can be considered as follows:

Spatial Justice
N/A

Spatial sustainability
The proposed extension of the mine is situated in a CBA 1 and CBA 2 location in terms of the Cape Farm Mapper and the Municipality's Integrated Development Framework. CBA 1 and 2 is defined as *areas in a natural condition that is required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.*

The mine is also located north of the R43, which is the main (tourism) route between Hermanus and Stanford. The locality of the mine on Erf 1068 allows it to be visible from Hermanus Old Harbour (Hermanus CBD) and sections of the R43, which are classified as a scenic route. This must be noted as the local economy of the Overstrand is largely underpinned by tourism derived from its scenic and heritage qualities.

Since the approval of the consent use application to regularise the use of the existing mine, Afrimat has undertook to clean out the river bed and rehabilitate the river, lessen the impact of the mining activities on the river by creating silt traps and implementing a storm water plan, alien vegetation clearing has also been continuously implemented. However, with the extension of the proposed mine the visual impact will be marginally greater than what is currently visible with the existing mine. Therefore the applicant proposes that the upper benches of the proposed extension will be mined and rehabilitated sooner in the mining life cycle, this will allow the lower benches to be mined while the rehabilitation on the upper benches screens the ongoing mining activity.

From the EA it is evident that the mining activity will have an impact on the natural environment, this in turn will have to be monitored and mitigated in the long run through rehabilitation. What is of note is that the proposed material will be used with the upgrading of the R43 which has a positive knock on effect towards access to the area and be to the benefit of tourism in the area.

Spatial Efficiency
Optimising the strategic resource by sourcing the mineral deposit in close proximity to its end-use Overstrand area and thereby reducing the carbon footprint (i.e. delivery/distance) and reducing impact on roads (i.e. maintenance) and impact on road user safety, compared to if such mineral sourcing was from further afield deposit reserves.

Spatial resilience
The application will enable the applicant to optimise his assets, should it be necessary due to economic and/or financial reasons. Further, job security will be afforded with the continuation of the mine which can help to strengthen the ability of the employees to deal with economic shocks.

Good administration
The application followed the required planning procedures to ensure that land use activity is in line with Municipal By-Laws and the public process has been followed.

9.2 (In)consistency with the principles referred to in Chapter VI of the Land Use Planning Act, 2014 (Act 3 of 2014)

Same as 9.1 above.

9.3 (In)consistency with the IDP/Various levels of SDF's/Applicable policies

Erf 1068 is situated within the Overstrand municipal area and therefore directed and managed by the Overstrand Municipal Wide Spatial Development Framework (2006) and the Municipality's Integrated Development Framework (2014).

The Macsands case states that a mining right issued in terms of Section 23(1) of the Mineral and Petroleum Resources Development Act 28 of 2002 (hereafter MPRDA) and a mining permit issued in terms of Section 27 of the MPRDA by the Minister does not trump the need to comply with other legislation relating to land use. This includes the Zoning Scheme Regulations (ZSR) and the SDF. The ZSR and the SDF stems from statutory requirements, the need for overall strategic planning and site specific planning to manage growth, conservation, land use and development. Further, the operator needs to comply with the relevant environmental legislation which in turn is also relatively new/updated legislation. The policies stated in the OMSDF have regard with conservation and environmental issues, therefore should the application comply with the relevant environmental legislation then it must also be able to comply with the current SDF.

The OMSDF's policy statements and guide lines on mining are as follows:

"Mining areas should take into account the worth of the material to be extracted against the long term costs of the visual quality of the area, the potential loss in agricultural production, as well as the impacts on existing rights of neighbouring property owners.

The extractive industrial activities should be in harmony with the ecological systems, respecting the processes that control the functioning of these elements.

The spatial location of mining activities needs to be carefully considered relative to the location of other comparable resources, infrastructure availability and environmental sensitivity.

Rehabilitation of mined areas should be a requirement undertaken simultaneously with mining operations. Rehabilitation should be monitored by an appoint ECO. Mining companies should be held accountable for the rehabilitation of mined areas.

Avoid mining activities in/near and implement mitigation measures if permitted for:

- *environmentally sensitive areas i.e. irreplaceable and vulnerable areas according to the bioregional planning model;*
- *visually prominent locations;*
- *ecologically vulnerable areas;*
- *areas in view of identified scenic routes; and*
- *sensitive hydrological systems."*

From the motivation it can be derived that the mining activities can still be made compliant with the SDF and its policies through the following:

- ❖ the continuation of the EMPr and the establishment of the Environment Monitoring Committee which promotes ongoing rehabilitation of the mining site including the rehabilitation of the riverine;
- ❖ the operation and rehabilitation of the proposed excavation extension area in such a manner to lessen visual impacts, and
- ❖ the Stanford Quarry achieving a balance between the benefits of mining at a strategic location versus the long-term environmental costs.

Since the approval of the consent use, Afrimat has taken additional actions as to show that the mining operation is consistent with the SDF:

- ❖ the applicant has provide proof of the appointment of an ECO and subsequent ECO reports as indicated in the EMP of 2011;
- ❖ alien clearing is continuously done;
- ❖ incorporated a Stormwater Management Plan and done a Fresh Water Ecosystems Impact Assessment.

9.4 (In)consistency with guidelines prepared by the Provincial Minister

Not applicable.

9.5 Impact on Municipal engineering services

No municipal services are provided to the property. It will be the responsibility of the property owner/mine operator to ensure that the water use is in line with the water use licence.

9.6 Outcomes of investigations/applications i.t.o other legislation

The applicant has indicated that the operator of the mine has obtained a mining right to mine a section of Erf 1068, Stanford - Mining Right was issued in 2012 for the existing excavation area. Further, prior to submitting the application for the proposed extension of the mine the operating authority of the mine received approval in terms of Section 102 of the MPRDA to the DMR on 10 October 2017 and along with EA in order to extent the mining activities eastward.

9.7 Existing and proposed zoning comparisons and considerations

As stated under the background heading, Erf 1068 is situated outside of Stanford next to the R43 between Stanford and Hermanus. The property is zoned for agricultural use and is currently being used for hard rock mining and farming activities. The mining activities have been in operation for the past two (2) decades without prior approval from the Municipality for the land use. A land use application to regularise the existing mining activities was submitted in 2016 and approved in April 2018. Subsequent to the approval the managing agent of the mine started to take steps in order to comply with the land use conditions.

With a growing demand for hard rock in the Overstrand area and the reconstruction of the R43 (Hermanus/Gansbaai road) the managing agent of the mine; Afrimat Aggregates (Operations) (Pty) Ltd, a subsidiary of Afrimat (Pty) Ltd, made application to extend the mining right area eastward. In terms of Section 102 of the MPRDA and NEMA authorisation was received. Prior to extending the life span of the existing mining activity and to extend the mining area eastward the land use application must first be approved, therefore the applicant applied for the amendment of the approval conditions as approved in April 2018.

9.8 The desirability of the proposal

As motivated by the applicant, the application is only applicable on Erf 1068 although the mining right area extends over the boundary of Erf 1068 to a portion of Erf 1069, and therefore the proposed Mine SDP will be limited to Erf 1068. This restricts the excavation area to the 2,55 ha on Erf 1068 and that the area between Erf 1068 and the boundary of Erf 1069 will be set out as the “no-go” area in terms of the EIAr/EMPr and the EA.

As stated earlier the applicant proposes the amendment of certain approval conditions as approved in April 2018, this will allow for the continued use of the existing mine and the extension of the mining activities eastward. The proposed amendments are as follows:

Amendments

- Condition 2(b):
  that a Revised Mine Site Development Plan (2018) for the existing and extension mining area be submitted for approval to the satisfaction of the Senior Manager: Town and Spatial Planning;

- Condition 3(a):
  that the approval of the continued use of the mine (existing and extension) is for the life of the extended mine; and
- Condition 3(b):
  that the Mining Right Area (existing and extension) and the Excavation Area (existing and extension) on Erf 1068 be limited to the 2018 Revised Mine Site Development Plan and as submitted with the application.

When assessing the desirability of the proposal in terms of the Overstrand Municipality's By-law on Municipal Land Use Planning, 2015 one must have regard for the following:

- the comments in response to the notice of the application and the comments received from organs of state and internal departments;
- the response by the applicant to the comments;
- investigations carried out in terms of other laws;
- consistency with planning principals;
- Spatial Development Frameworks;
- the impact the proposed use will have on the environment and infrastructure, and
- the compatibility (visual impact, impact on safety and location) of the proposed use with surrounding land uses.

Various internal and external departments and organisations' comments were received on the application. Two (2) negative comments where received against the application submitted to the Town and Spatial Planning Department. The two (2) comments were provided by SHC/SCT and CapeNature. The comments were provided to the applicant and a meeting were held with the objecting parties, both parties indicated that their objections are to be withdrawn subject to conditions. The conditions are noted and will be incorporated into the conditions of the decision. The conditions will not be inserted as verbatim, but the underlining principle and effect of the conditions will be kept. The conditions relate to the incorporation of an Environmental Monitoring Committee which will oversee how the mine will be managed and rehabilitated. The opinion is held that the proposed condition can be inserted irrespective of whether the application is approved or not.

Environmental Authorisation has been received and the comment from the Overstrand Environmental Section is that the managing agent must comply with the approved EA.

As stated earlier, since the approval of the consent use in April 2018 the managing agent of the mine has started to take steps in order to comply with the land use conditions. Further, the managing agent also started to address issues and concerns raised in comments received during the public participation process. The following actions have been taken:

- ❖ Environmental Impact Assessment/Environmental Management Programme Report updated 7 May 2017;
- ❖ annual Rehabilitation Plan dated 1 October 2018 which detailed the appointment of the Environmental Control Officer (ECO);
- ❖ alien clearing is done continuously;
- ❖ rehabilitation has started on the riverine, and

- ❖ incorporated a Stormwater Management Plan and done a Fresh Water Ecosystems Impact Assessment.

Considering the above the managing agent is taking the correct steps in order to promote consistency with the mining policy as depicted in the OMSDF. It is of note that consistency with the LUPA and SPLUMA planning principle of spatial sustainability is harder to achieve as the proposed extension of the mining activity will have an impact on the natural environment. However, the proposed extension of the mining activity can be limited to a set geographical area which limits its impact, and in turn its impact will have to be monitored and mitigated in the long run through rehabilitation.

Should the aforementioned actions be done then the existing mine will also be consistent with objectives of the CBA in which the mining activity is situated.

The applicant proposes to utilise the existing infrastructure and road ways which have been developed, with the only addition being the extension of the haul road which will enable the mine operators to reach the top benches. No services are rendered to the erf by the Municipality as per the Services Report.

As stated in the previous consent use application which served before the MPT, the location of the mine in relation to the area which it serves must be considered when assessing the compatibility of a mine. Hermanus and the Overstrand Municipality are seeing tremendous growth in the building industry and the products produced by the mine is used extensively by the building industry. Further, the location of resources must be weighed against the impact of the mining activity on visual and environmental concerns along with the economics of scale, travelling distance (logistics) and impact on tourism. As stated earlier the mine is situated next to the R43, from a site location it is beneficial due to:

- the material is situated next to the R43 compared to alternatives in Grabouw;
- fewer logistics obtaining the material;
- should another source (outside of the municipal area) be used then the impact on other roads and infrastructure will be greater which might be an additional cost to the Municipality;
- the location is not only positive for the R43, but also for the continuation of the building industry in and around Hermanus;
- the continuation of the mining activity has a limited site specific impact (subject to the continuation of the river bed rehabilitation), and could promote job security for various sectors;
- it is proposed that the material used will be for the upgrading of the R43 which will be beneficial for tourism in the area, and
- the mining activities which occur in the view shed of the adjoining properties and the R43 will be rehabilitated earlier in the mine lifecycle, which in turn mitigate long term impact on tourism and landscape quality.

In the item which previously served before the MPT it was also discussed and motivated that the existing mine has reached 98% of its production, in a recent discussion with the applicant it was pointed out that the last blasting was to occur in August 2019. Meaning that the current supply of aggregate to the building sector in Hermanus could become more logistically complicated, by

amending the conditions of approval one would allow for the continuation of the mining activity allowing for additional material at a location which is beneficial to the economic and building sector in and around Hermanus. Further, the applicant has shown that the managing agent is willing and has taken steps to ensure that the impact of the mine on the environment will be mitigated.

One of the major concerns which are addressed by the applicant is whether the proposed extension will increase the visual impact. As can be seen from the motivation the proposed extension will have a marginally greater impact than what is currently visible with the existing mine. Therefore the applicant proposes that the upper benches of the proposed extension will be mined and rehabilitated sooner in the mining life cycle, this will allow the lower benches to be mined while the rehabilitation on the upper benches screens the ongoing mining activity. It is also further proposed that the upper benches within the view shed (visible from the surrounding areas) will be 5m high in order to facilitate the rehabilitation process.

Given the abovementioned, the history of the mine (the fact that the current mine is an operationally sustainable mine) and the mitigation measures as proposed by the applicant; the opinion is held that the proposed amendment of approval conditions are considered desirable subject to stringent conditions. Should the conditions not be adhered to then the mining activity will be forced to cease until such a time as to when the conditions can be complied with.

9.9 ADDITIONAL PLANNING EVALUATION FOR REMOVAL OF RESTRICTIONS

The financial or other value of the rights

N/A

The personal benefits which will accrue to the holder of rights and/or to the person seeking the removal

N/A

The social benefit of the restrictive condition remaining in place, and/or being removed/amended

N/A

Will the removal, suspension or amendment completely remove all rights enjoyed by the beneficiary or only some of those rights

N/A

10. RECOMMENDATION

1. that the application in terms of Section 16(2)(h) of the Overstrand Municipality By-Law on Municipal Land Use Planning, 2015 (By-Law) for an amendment of the conditions of approval applicable to Erf 1068, Stanford in order to permit the extension of hard rock mining **be approved** in terms of the provisions of Section 61 of the By-Law;

2. that the conditions of approval taken on 28 March 2018 and letter dated 10 April 2018 be amended as follows:

   2. (b) *that a Revised Mine Site Development Plan (2018) for the existing and extension mining area be submitted for approval to the satisfaction of the Senior Manager: Town and Spatial Planning*;

   3. (a) *that the approval of the continued use of the mine (existing and extension) is for the life of the extended mine*, and

   3. (b) *that the Mining Right Area (existing and extension) and the Excavation Area (existing and extension) on Erf 1068 be limited to the 2018 Revised Mine Site Development Plan and as submitted with the application.*

3. that the following conditions for the approval in paragraph 1. above must be complied with within **sixty (60) days**:

   (a) that the Environmental Monitoring Committee (EMC) be established and that the relevant stakeholders which may include, but not limited to representatives of the Overstrand Municipality, CapeNature, Breede-Gouritz Catchment Management Area, Klein Rivier Estuary Forum, Stanford Heritage Committee/Stanford Conservation Trust, Department of Environmental Affairs and Development Planning (Component: Environmental Management) and adjoining property owners, be invited to the meetings;

   (b) that the structure of the EMC and the intervals on which meetings must be conducted be discussed and decided on at the first meeting held by the committee;

   (c) that the minutes of the meetings of the EMC and the committee's findings be made available to interested and affected parties, and that should any findings be of concern or be an indication of non-compliance with regards to the relevant legislation then the EMC should notify the relevant authority of the committees concerns/findings;

   (d) that a study be done in order to determine which sections of the existing excavation can be rehabilitated without obstructing the functioning of the proposed mining activities, and

   (e) that the rehabilitation of the river be continued and that further reports and photographic evidence be submitted to the Overstrand Town Planning Department, Environmental Services and Cape Nature;

4. that the additional conditions for the approval of paragraph 1. above must be complied with:

   (a) that all the conditions compiled by Eskom, Department of Transport and Public Works, the Department of Environmental Affairs and Development Planning, *Component: Environmental Management* and CapeNature (Annexures F, H, and I), be complied with;

(b) that all the conditions compiled in the Services Report (attached as Annexure M) , be complied with;

(c) that the conditions compiled by the Stanford Heritage Committee and Stanford Conservation Trust, dated 16 April 2019 (Annexures E), be noted;

(d) that the conditions compiled by Cape Nature (Annexure L)be noted, and

(e) that this approval does not absolve the applicant/operator of the proposed activity from complying with other legislation.

5. that should the conditions in paragraphs 2., 3. and 4. not be adhered to then the mining activity must cease until such time as when the conditions can be complied with;

6. that the applicant/person(s) who commented be notified of their right of appeal in terms of Section 78 of the Overstrand Municipality By-Law on Land Use Planning, 2016 with regard to the above conditions of approval

11. REASONS FOR RECOMMENDATION

- the application complies with four (4) of the principles as set out in SPLUMA and LUPA and should proposed actions be done then all of the planning principles will be complied with;
- no objection was received against the application from the adjacent property owners;
- the objections received from the Stanford Heritage Committee and CapeNature was addressed and is incorporated in principle in the conditions of approval;
- the agricultural land use on the property will not be affected;
- the location of the mining activity is beneficial to the surrounding area and various sectors of the Overstrand economy;
- management of the mine and the steps taken to mitigate the effect of the mine is in line with the policies of the SDF;
- the resources mined is used in the building industry in and around the Overstrand, and
- the mining activity which occur in the view shed of the adjoining properties and the R43 will be rehabilitated earlier in the mine lifecycle, which in turn mitigate long term impact on tourism and landscape quality.

12. Annexures

Annexure A:	Locality Plan
Annexure B:	Motivation Report
Annexure C:	Site Plan
Annexure D:	Objections received from Stanford Heritage Committee/Stanford Conservation Trust
Annexure E:	Applicant's comment on the objections
Annexure F:	Eskom
Annexure G:	Department of Environmental Affairs and Development Planning, *Component: Development Management*
Annexure H:	Department of Transport and Public Works

Annexure I:	Comment: Department of Environmental Affairs and Development Planning, *Component: Environmental Management*
Annexure J:	CapeNature
Annexure K:	Applicant's comment on CapeNature
Annexure L:	Final comment from CapeNature
Annexure M:	Services Report

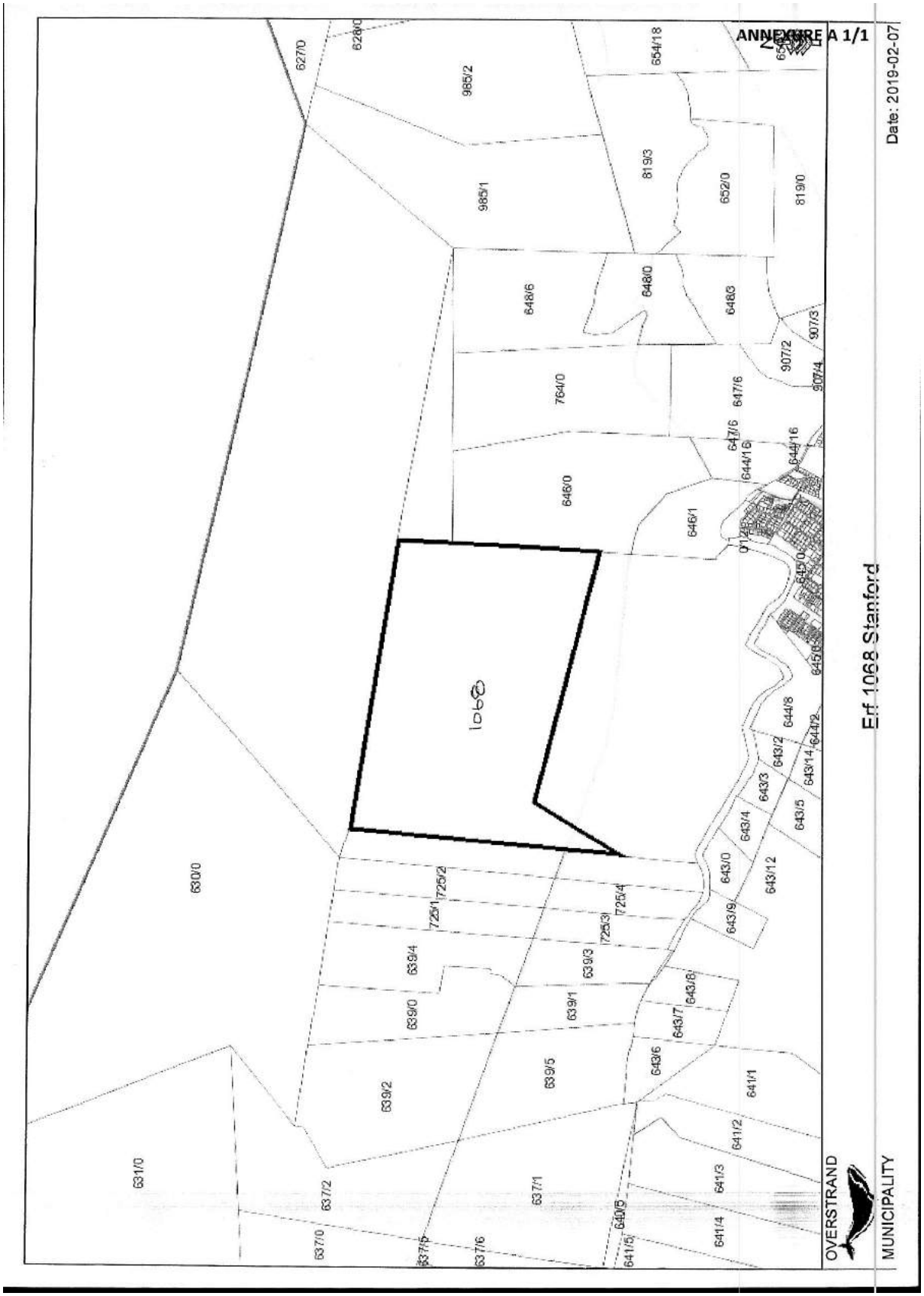
SIGNATURES

AUTHOR:

Name:	**PETRUS ROUX**
SACPLAN Reg No:	**A2246/2015**
Signature:	_____
Date:	_____

REGISTERED PLANNER

Name :	**H VAN DER STOEP**
SACPLAN Reg No:	**A1708/2013**
Signature :	_____
Date:	_____


ANNEXURE A 1/1
Erf 1068 Stanford
Date: 2019-02-07
OVERSTRAND
MUNICIPALITY
1068
627/0
628/0
985/2
985/1
654/18
819/3
652/0
819/0
648/6
648/0
648/3
907/3
907/2
907/4
764/0
647/6
644/16
646/0
646/1
645/0
644/8
644/2
643/2
643/14
643/3
643/5
643/4
643/0
643/12
643/9
725/2
725/1
725/4
725/3
639/4
639/3
639/0
639/1
643/8
643/7
643/6
639/2
639/5
641/1
641/2
641/3
641/4
631/0
637/2
637/1
637/0
637/5
637/6
640/6
641/5

REPORT IN MOTIVATION OF AN APPLICATION IN TERMS OF SECTION 16(2)(h) OF THE OVERSTRAND MUNICIPALITY: MUNICIPAL LAND USE PLANNING BY-LAW, 2015 FOR THE AMENDMENT OF CONDITIONS OF EXISTING APPROVAL FOR HARD ROCK MINING ON ERF 1068 STANFORD TO PERMIT THE EXTENSION OF SUCH MINING ON ERF 1068 STANFORD, OVERSTRAND MUNICIPAL AREA

PREPARED FOR
AFRIMAT AGGREGATES (OPERATIONS) (PTY) LTD

PREPARED BY

setplan

PO Box 28
Strand
7139
(021) 854 4260

MOTIVATION REPORT 1619/R2b
DECEMBER 2018

Table of Contents

List of Figures

List of Annexures (refer Annexures Report 1619/R3b-December 2018)

Annexure T: Breede-Gouritz Catchment Management Agency letter dated 24 July 2017
Annexure U: Notes of Meeting held with Overstrand Municipality on 23 October 2018
Annexure V: Haw & Inglis letter dated 31 October 2018

1. INTRODUCTION

1.1. Background and Current Authorisations

1.1.1. Land Use Authorisation

The existing Stanford Quarry located on Erf 1068 Stanford (refer Figure 1), operational since 1996, is approved in terms of a Consent Use dated 10 April 2018 (Overstrand Municipality ref. 1068 SSS) for the Converted Mining Right Area and valid for three (3) years from the date of approval (refer Figure 2 and Figure 4 and Section 1.2.2).

1.1.2. Mining Authorisation

While mining at the existing Stanford Quarry was initially (i.e. from 1996) in terms of a Mining Licence, current mining is in terms of a Converted Mining Right (2012), with the approved Mining Right Area being 24,8ha as depicted in Figure 2. Such Mining Right Area represents Phase 1 of the Stanford Quarry. By 2016 demand for hard rock products in the Overstrand municipal area had depleted reserves in the Phase 1 Mining Right Area by 98%, requiring the extension of the existing quarry face eastwards in order to meet increasing local Overstrand hard rock product demand, including the pending Hermanus-Gansbaai road (R43-TR28/2) reconstruction in early 2019. **The lead contractor, Haw & Inglis confirm their intention to utilize aggregate from Stanford Quarry for the 18km upgrade of TR28 (R43) which is accessed directly from the quarry property**. Refer letter dated 31 October 2018 in Annexure V.

Accordingly Afrimat Aggregates (Operations) (Pty) Ltd, a subsidiary of Afrimat (Pty) Ltd, made application in terms of Section 102 of the MPRDA to the DMR and obtained approval on 10 October 2017 for an extension of the existing Mining Right Area. Such Mining Right Extension included an approved Environmental Authorisation (refer Annexure B) dated 10 October 2017 in terms of the National Environmental Management Act (Act 107 of 1998) allowing for the eastward extension of the existing quarry (Phase 1), including an area of 9,7557ha (Phase 2) of which the total excavation area will be 2,55ha as illustrated in Figure 3. Such extension is located on Erf 1068 and the adjacent Erf 1069, both of which are in the ownership of the Richard Metcalf Family Trust. However, it is noted as per Figure 3 that while the Mining Right Extension Area also extends onto Erf 1069, such extension into Erf 1069 only comprises 736m²; that the limit of the proposed excavation is 75,3m south of the Erf 1068-1069 property boundary; and that all land between the approved excavation and the Erf 1069 boundary being a "no-go" area, excluding any mining activity.

1.1.3. Demand for Aggregate Material

Afrimat Aggregates (Operations) (Pty) Ltd (previously Prima-Klipbrekers (Pty) Ltd, a public listed company, have operated the Stanford Quarry on Erf 1068 Stanford since 1996. Such continuous operation over 22 years and support of the Overstrand construction industry clearly demonstrates the demand for construction aggregate in the Overstrand, the product of which is further reflected in significant scale of urban development and growth in the Overstrand during the same 22 year period.

Overstrand, as recognised and promoted in its forward vision and planning, needs to maintain, refurbish and continue to grow its development, with eco-and marine tourism and education, medical services and retirement underpinning it as a regional, national and international sought-after destination and investment. Critical to maintaining and growing its economy is "*concrete aggregate*", a fundamental input to any development, its maintenance and refurbishment, irrespective of building technology and material type, with road, harbour and services infrastructure development essential to Overstrand's on-going development and investment attraction.

Stanford Quarry is ideally placed, as in the past, to continue to support the Overstrand development initiative given the quarry being established (i.e. existing and mitigated footprint disturbance), having significant reserves of aggregate and being located central and in close proximity to its Overstrand consumers. Stanford Quarry has a competitive edge over any alternative existing or potential site given the following:

(i) An established quarry excavation with a production capacity of up to 120,000 tons per annum, supported by established plant, processing and logistical infrastructure on Erf 1068.

(ii) That the nearest comparative commercial suppliers of construction aggregate are distant to Hermanus, namely Palmiet Quarry; 57km and Villiersdorp Quarry; 55km. This translates in a transport cost of between R3,605.00 to R3,460.00 per 35 ton truck-load of construction aggregate transported from either of the sources respectively. Stanford Quarry's location, 20km from Hermanus as illustrated in Figure 1b, results in a 275%-286% saving, representing a significant cost saving to the consumer.

(iii) Road maintenance cost saving due to a shorter delivery route, together with increased public road user safety.

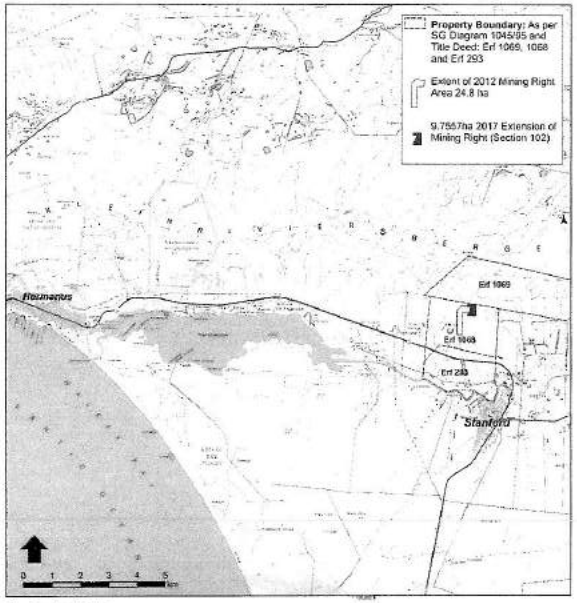


Figure 1a: Locality Plan

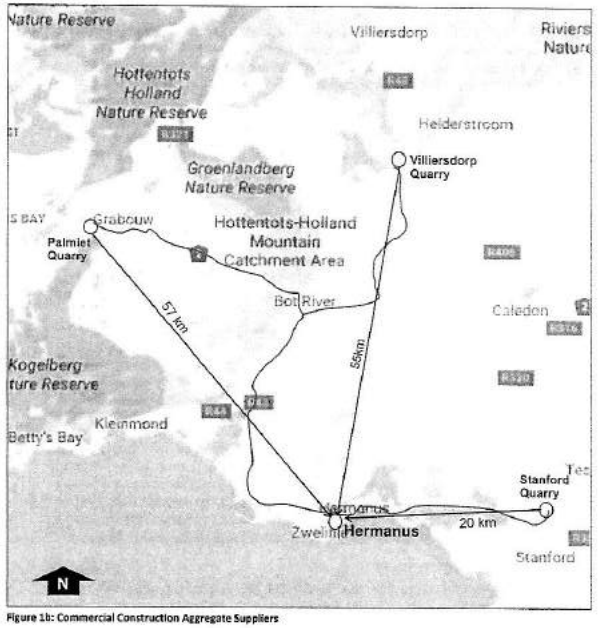


Figure 1b: Commercial Construction Aggregate Suppliers

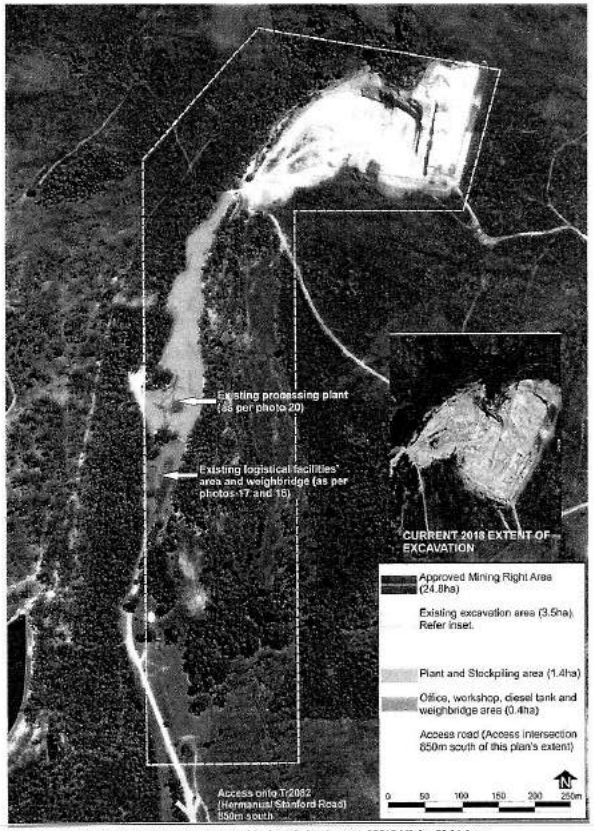


Figure 2: Extent of Existing Land Use Activities within the Existing Approved 2012 Mining Right Area

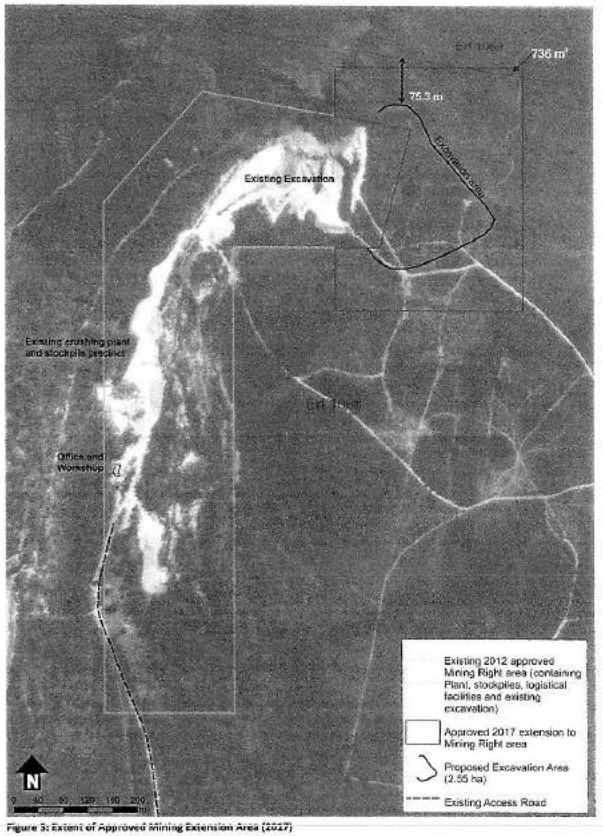


Figure 3: Extent of Approved Mining Extension Area (2017)

1.2. Nature of the Application

The applicant, on behalf of the land owner the Richard Metcalf Family Trust, hereby applies in terms of Section 16(2)(h) of the Overstrand Municipality: Municipal Land Use Planning By-Law, 2015 for the **amendment** of the following conditions of approval listed (section 2(a)(i), section (a)-(f) and Section 4) and accompanying the Decision Letter to the Applicant dated 10 April 2018 headed: "ERF 1068, STANFORD, OVERSTRAND MUNICIPAL AREA: PROPOSED CONSENT USE" which resolved "*that, in terms of Section 16(2)(o) of the By-Law for a Consent Use in order to permit mining activities on Erf 1068 Stanford, be approved in terms of Section 62 of the By-Law*".

Amendments:

(i) Condition 2(b); *that a Revised Mine Site Development Plan (2018) for the existing and extension mining area be submitted for approval to the satisfaction of the Senior Manager: Town and Spatial Planning*;
(ii) Condition 3(a); *that the approval of the continued use of the mine (existing and extension) is for the life of the extended mine*; and
(iii) Condition 3(b); *that the Mining Right Area (existing and extension) and the Excavation Area (existing and extension) on Erf 1068 be limited to the 2018 Revised Mine Site Development Plan and as submitted with the application*

to **be approved** in terms of the provisions of Section 61 of the By-Law

Figure 4 depicts the spatial extent (i.e. 24.8ha) of the existing 2018 Consent Use Area and Mine SDP, as well as the proposed Extension of the Mine SDP, noting that the Mine SDP extension is applicable to Erf 1068 only despite the approved Mining Right Area extending onto Erf 1069. This is due to such portion on Erf 1069 being excluded from mining given the approved excavation area being restricted to the 2.5Sha on Erf 1068 and that such portion on Erf 1069, together with the area between the excavation and the Erf 1068 – 1069 boundary being part of a "no-go" area in terms of the EIAr/ EMPr and the EA.

1.3. Purpose and Content of this Report

This report has been prepared in motivation of the abovementioned applications. It augments information required in the "Land Use Management Application Form". The completed and signed Application Form is attached to the application, with a copy thereof in Annexure A.

This report is supported by the Annexures Report (Report 1619/R3b, December 2018), inclusive of Annexures A to V.

While this application has as its primary purpose meeting the requirements of the Overstrand Zoning Regulations (Development Management Scheme), it will draw heavily on the following:

(i) The Environmental Impact Assessment/ Environmental Management Programme Report (Report 2258/MR/FEMP/R1 dated 7 May 2017) for Stanford Quarry as submitted for Environmental Authorisation in terms of the National Environmental Management Act, 1988 and the National Environmental Management Waste Act, 2008 in respect of Listed Activities that have been triggered by applications in terms of the Mineral and Petroleum Resources Act, 2002 (MPRDA) (as amended). Such application was lodged with the Department of Mineral Resources (File Ref.no. WC30/5/1/2/2/349MR), was approved, including an Environmental Authorisation on 10 October 2017 (refer Annexure B) and the Extension of Mining Right Area being valid for the 'life-of-mine".
(ii) Authorisations and comment received to date as part of the abovementioned EIA/ EMP process include:

- Approved Environmental Authorisation (EA) and extended Mining Right Area (refer Annexure B)
- Heritage Western Cape (HWC) letter dated 29 March 2016 (refer Annexure G)
- DEA&DP: Directorate Development Management (Region 2) letters dated 25 May 2016 and 27 September 2016 (refer Annexure I)
- Western Cape Department of Agriculture: Land Use Management letter dated 4 July 2016 (refer Annexure J)
- Overstrand Municipality: Environmental Section letters dated 5 August 2016, 16 September 2016 and 18 April 2017 (refer Annexure K)
- CapeNature: Scientific Services letters dated 26 September 2016 and 13 April 2017 (refer Annexure L)
- National Department of Public Works email dated 15 September 2016 (refer Annexure M)
- Western Cape Department of Transport and Public Works: Road Network Management letters dated 25 August 2016 and 5 April 2017 (refer Annexure N)
- Commission on Restitution of Land Rights letter dated 18 October 2016 (refer Annexure O)
- Breede-Gouritz Catchment Management Agency letter dated 24 July 2017 (refer Annexure T)

(iii) Other compliances, including:

- SPLUMA Section 52 not being applicable as this land development does not materially impact on national matters, policy objectives or functional areas, neither will it be prejudicial to the economic, health or security interests of one or more provinces or the Republic as a whole, or impede the effective performance of the functions of one or more municipalities or provinces insofar matters within their functional area of legislative competence.
- LUPA Section 53 and the Western Cape Land Use Regulations (2015) Section 10 not being applicable to the proposed mining area on Erf 1068 Stanford given that such land portion has not been cultivated or irrigated for agricultural purposes in the past 10-year period, having been utilized as a hard rock quarry and natural veld during that period.
- At the meeting held on 23 October 2018 with Infrastructure and Planning: Town Planning and the Environmental Division of Overstrand Municipality, the following was confirmed regarding the land use application required to achieve land use authorisation to permit an extension of mining on Erf 1068 and continued mining on Erf 1068 as per the existing Consent Use Approval (refer Annexure U):
  - Application to focus on the "amendment, deletion or addition of conditions in respect of an existing approval" especially insofar an amendment of the Mine SDP, mine programme, mining area and rehabilitation programme
  - Clear distinction be made between rehabilitation during mining and post-mining (e.g. benches)
  - Identify end-use on closure of mine
  - Address two main impacts, namely siltation of the stream and visual impact
  - Take cognisance of the cultural and working landscape, especially within the Stanford environs
  - Graphically illustrate the extent of topographical impact per mining phase
  - Map location of other commercial suppliers of construction aggregate
  - The application being applicable for Erf 1068 Stanford
  - Quantify/ qualify blast impact (e.g. regulations, nuisance level, occurrence, notification etc.).

The balance of this motivation report is structured as follows:

- Section 2 reviews the attributes of Erf 1068 and its surrounds, which inform the extension of hard rock mining consideration.
- Section 3 presents the mining proposal.
- Section 4 identifies potential impacts and puts forward mitigatory measures.
- Section 5 assesses the desirability of the mining, with specific reference to the following:
  - Consistency with the Municipality's Spatial Development Framework and Zoning Regulations (Development Management Scheme)
  - Economic impact
  - Social impact
  - Capital investment
  - Compatibility with surrounding land uses
  - Impact on existing services
  - Impact on safety, health and well-being of the surrounding community
  - Impact on existing use rights
  - Impact on heritage
  - Impact on the biophysical environment
  - Traffic impacts and related considerations
- Section 6 draws conclusions and makes a recommendation on the application.

Specialist studies and supporting documentation are contained in Annexures to the motivation report, including:

- Annexure O: Botanical Assessment; Fynbos Ecoscapes (July 2016)
- Annexure Q: Visual Impact Assessment
- Annexure R: Stormwater Management Plan
- Annexure S: Freshwater Ecosystems Impact Assessment

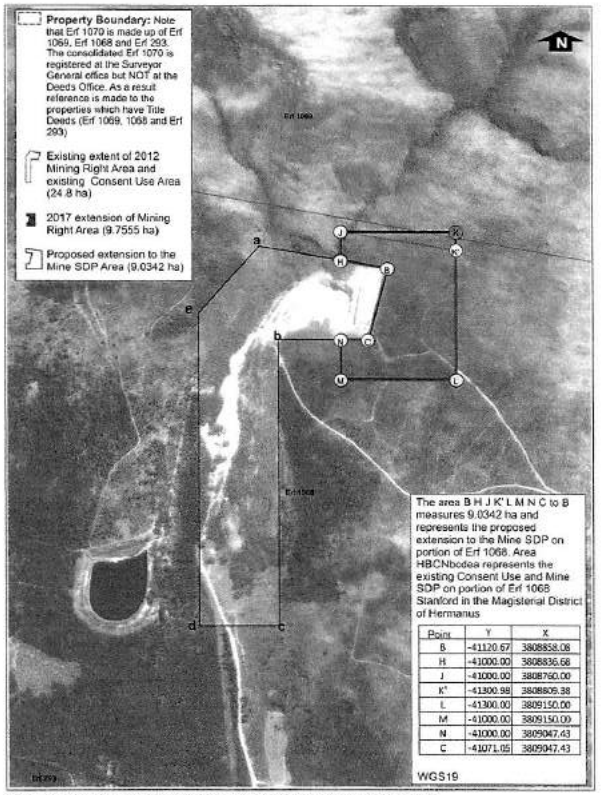


Figure 4: Existing Approved Consent Use Area and Proposed Extension to Mine SDP Area

2. LOCALITY

2.1. Locality, Ownership and Extent

2.1.1. Locality

As illustrated in Figure 1: Locality, Erf 1068 is located 3km north of Stanford and 17km east of Hermanus, to the north of Trunk Road 28/2. Figure 1 and Figure 4 illustrate the existing Consent Use and proposed Mine SDP Extension areas, while Figure 3 indicates the existing approved Mining Right Area and the newly approved Extension of Mining Right Area on both Erf 1068 and 1069, with the approved extension excavation on Erf 1068.

Erf 1068's location is (refer Figure 2 and SG 1045-94):

Lat/Long (WGS 84):

S34°24'27.03"

E19°26'47.95"

2.1.2. Site Description, Ownership and Extent

(i) Erf 1068

Figure 5 and SG No. 1045/94 (refer Annexure F) illustrates the cadastral context of Erf 1068, which held in terms of consolidated Title Deed 13061/1991 is described as follows:

- Erf 1068 Stanford: THE REMAINDER OF PORTION 3 (a portion of portion 1) of the Farm Riverside No 640 situate in the Division of Caledon; 410,7342ha in extent (Title Deed endorsement: "The land described herein has been renumbered: Para. 6; Erf 1068 Stanford.)

Ownership of Erf 1068, Erf 1069 and Erf 293 vest in the Richard Metcalf Family Trust (Reg. No T100/86), with the following instructions to submit this application:

- Resolution of the Richard Metcalf Family Trust (refer Annexure C)
- Special Power of Attorney issued by Russell Metcalf to Neville van der Westhuizen and Rodney Cronwright of Settlement Planning Services (Western Cape) trading as Setplan. (refer Annexure D)

(ii) The extent of the existing and approved Consent Use area is depicted in Figure 4.

(iii) Servitudes and Building Lines:

- Erf 1068 is subject to 30,0m street and common boundary building line in terms of Agriculture Zone 1 development rules. Despite the Mining Right Area traversing the Erf 1068/ Erf 1069 boundary (+-736m²), the closest quarry workings to the Erf 1068/ Erf 1069 boundary are 75,3m within Erf 1068, that is exceeding the 30,0m Agri-Zone 1 building line (refer Figure 3).
- As detailed in SG 1045/95 (Annexure F) any servitudes traversing Erf 1068 is either not restrictive to the proposed mining land use or have been accommodated in the Mining Right Areas since mine establishment in 1996.

(iv) Surrounding Ownership

Figure 5 depicts the surrounding property cadastre and ownership

(v) Bondholder's Consent

No bondholder's consent, given no mortgage bond registered against the property

(vi) Land Claims

The Office of the Regional Land Claims Commissioner (Western Cape) in its letter dated 18 October 2016 (refer Annexure O) confirms the following: ***"that as at the date of this letter no land claims appear on our database in respect of Erf 1068 Stanford (previously known as Portion 3 of the Farm Riverside No 640 Stanford), and Erf 1069 Stanford (previously known as Farm No 629 Stanford)"***

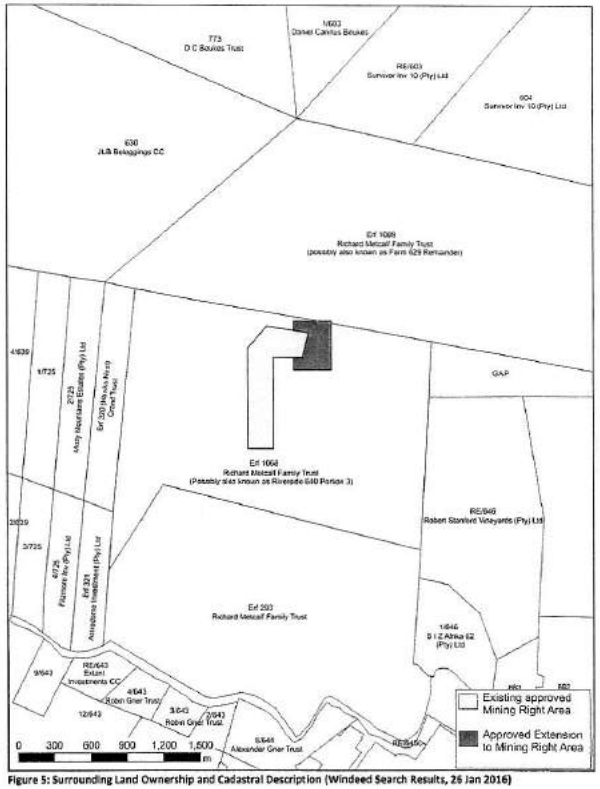


Figure 5: Surrounding Land Ownership and Cadastral Description (Windeed Search Results, 26 Jan 2016)

2.2. Existing and Surrounding Zoning

Erf 1068 is zoned Agricultural Zone 1 in terms of the Overstrand Municipality Zoning Regulations. Surrounding properties are also zoned Agricultural Zone 1.

2.3. Existing and Surrounding Land Use

2.3.1. Existing Land Use

Land Use within the proposed mining area as illustrated in Figure 6 includes:

(i) Erf 1068

- Existing Land Use on Erf 1068 is predominantly extensive agriculture (i.e. livestock grazing), with limited intensive agriculture (i.e. vegetable cultivation) practised in the south-west portion of the Mining Right Area. Land Use within the remainder of the Mining Right area includes the rehabilitated scree mined area, the existing logistical facility area, weighbridge and existing processing plant, with the current excavation area in the north-east.
- The proposed extension on Erf 1068 as depicted on the inset in Figure 6 is vacant and is natural veld, with 2 tracks located on the site.

2.3.2. Surrounding Land Use

Surrounding land uses as illustrated in Figure 7 include:

- The existing excavation is located immediately west of the proposed extension, with the plant, stockpile and logistical facilities located further south-west.
- To the north, wilderness.
- The closest farmstead is located 1.8km to the south-west.
- Fairly large farm dam is located 900m south-west (the Good Luck Dam). This has not yet been impacted by existing mining and is thus unlikely to be impacted by continued mining at a further distance (except of course in the case of continued water use from this dam).
- The closest road is the R43 (Trunk Road 28/2) Stanford to Hermanus at 1.9km to the south.
- Stanford CBD is 3.7km to the south south-east.

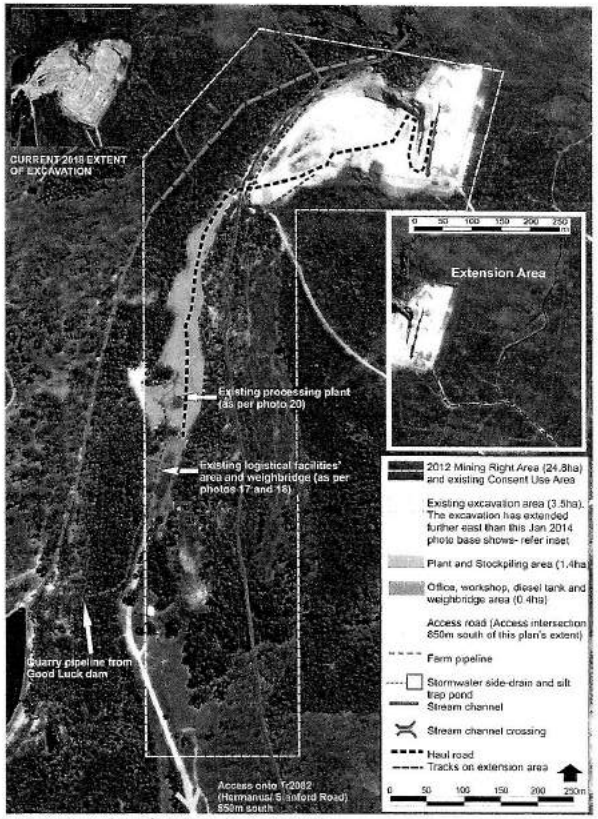


Figure 6: Existing Land Use, Infrastructure and Engineering Services

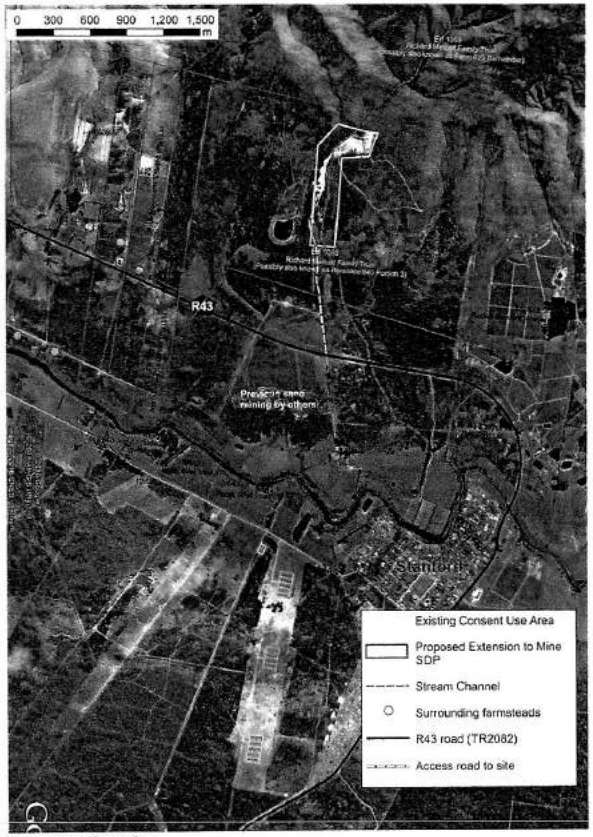


Figure 7: Surrounding Land Use

2.4. Access and Engineering Services

Access to the Mining Right Area is via a gravel road traversing Erf 1068 and Rem Erf 293 to TR28/2-R43 +-850m south of the Mining Right Area (refer Photo 1).

Photo 1: Existing quarry access off the R43

The Provincial Department of Transport and Public Works: Road Network Management in its letter dated 25 August 2016 (refer Annexure N) notes the following:
"This Branch offers no objection to the proposal to extend the lifespan of the existing quarry subject to the following:
(i) Regular trimming of the verge to ensure that shoulder sight distance is maintained.
(ii) The existing access at +-km20.36 off Trunk Road 28/2 is hard surfaced".

Accordingly, the following upgrading of the R43 intersection will take place:
- Regular trimming of vegetation abutting the intersection verge, with such maintenance being part of the quarry "housekeeping" and being programmed with immediate affect.
- Hard surfacing (bitumen) of the R43 (TR28/2) intersection to be programmed to coincide with the upgrade of the R43 which is scheduled for early 2019 in order to be informed by the upgrade horizontal and vertical alignment, as well as the availability of bitumen surfacing contractor in the area. Quarry Management to liaise timeously with the design engineer and contractor for the upgrade.

Existing engineering services include the following (refer Figure 6)
- The haul road from the Plant Area to the excavation
- Stream channel culvert/ crossing
- Stormwater side-drains and berms
- Silt trap ponds
- Farm pipeline to Good Luck Dam for sourcing farm water supplies
- Quarry pipeline providing water to logistical facility and plant
- Potable water brought onto site in containers
- Sanitation via conservancy tanks serviced by the municipality
- Domestic and industrial waste removed by specialized contractors

2.5. Overstrand Spatial Development Framework (2017) and Biodiversity Network (2017)

The Overstrand SDF does include a mining policy but does not specify any areas as being reserved for construction materials. The Mining policy contained in the SDF is copied below:

Mining policy

No.	Policy statement
P15.1	
P15.2	
P15.3	
P15.4	
P15.5	

Issue	Guidelines

In terms of specifics, the SDF mapping of the area is as shown in Figure 8. Such information is copied directly from the October 2006 SDF.

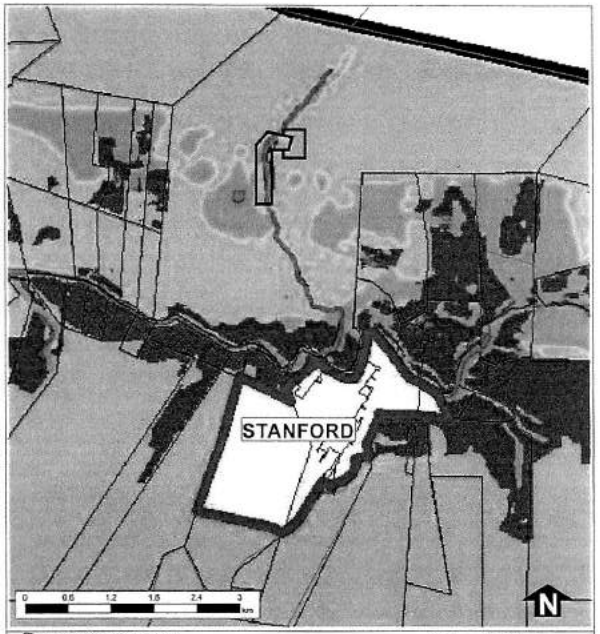


Figure 8: Overstrand SDF

The following excerpt is the SDF's policy in respect of mining when it takes place within the Conservation – Agriculture Buffer

> Where mining rights exist and mining would result in transformation of threatened ecosystems, offsets should be required. With regard to the transformed areas, stringent rehabilitation measures, monitoring and auditing should be essential, and the objective of rehabilitation should be to restore natural veld of the affected area. The professional input of a specialist botanist with local knowledge and experience, as well as from CapeNature, should be required in this regard.
> Input by the Municipality to the preparation of an EMPR is considered essential, to ensure that such EMPR would be adequate in terms of the policies and strategies within this spatial planning category, and would be implemented.
> Proposed new mining activities, which would not involve transformation of any natural vegetation, should be subject to environmental assessment, giving due consideration to the potential significance of associated impacts on biodiversity, ecological processes, ecosystem services, heritage and landscape character, and on the social and economic fabric of local communities. Provided that negative impacts could be managed and mitigated (including offsets) to make them acceptable, that there would be net benefits, and there is assurance of sound management and rehabilitation, mining should be allowed. Input by the Municipality to the environmental assessment conducted as part of the mining application, and to the preparation of an EMPR, is considered essential. Such input would help ensure that decision-making on mining is sound, and that the associated EMPR is adequate in terms of the policies and strategies within this spatial planning category, and would be implemented.

2.6. Topography

The site is located in the southern lower slopes of the Klein Rivier Mountain, geologically made up of Table Mountain Sandstones. The existing excavation is however located on the very steeply sloped west facing slope of a tributary to the Kleinrivier. The current excavation has its base at level 120m amsl and *rises to its upper level at contour level 235m* (refer Figure 9a). At present there are several ridgelines which serve to reduce / eliminate visual impact from the south and south west. Refer Visual Impact in Section 2.7 and Annexure Q.

Figure 9b illustrates the topographical impact that will result from the extension of the existing excavation, demonstrating the mitigation of such impact through location of the excavation on a flatter section of the spur, retaining the southern and south-western ridge-line, sloping of the northern excavation edge and limiting extent of the upper north-eastern quarry benches and faces to facilitate improved vegetation re-establishment, and not retaining a berm along the south-west excavation edge. Accordingly, as illustrated the topographic impact to be viewed from the south-west and south will be mitigated within acceptable limits. The rehabilitation of the north-eastern upper benches and faces will be continued into the existing excavation, with such rehabilitation being conducted in both the new and existing excavation during mining (i.e. operational rehabilitation; refer Section 3.2.2 and 3.6.1)

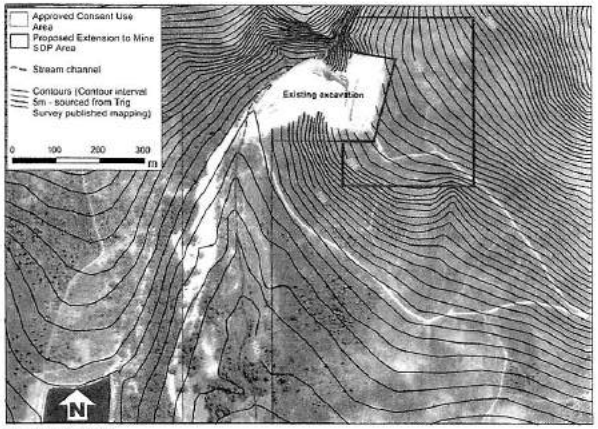
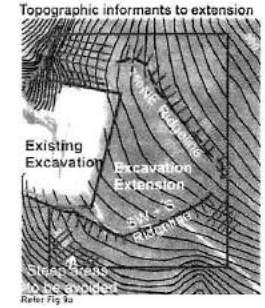
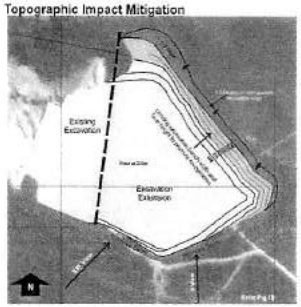
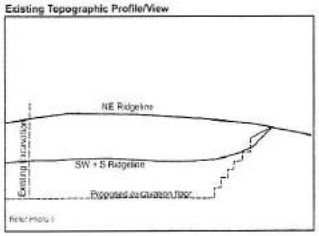
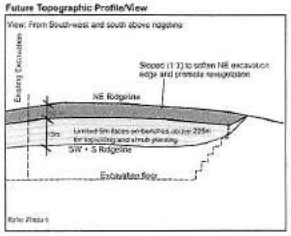


Figure 9a: Topography









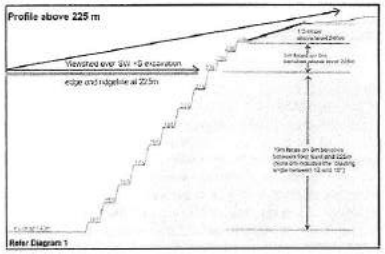


Figure 5b: Topographical Impact

2.7. Visual Impact

The existing visual impact is attributed a rating of ***moderate***. Eventual visual impact is ascribed a rating of ***significant*** but only because of the widespread comment received in this regard. Refer Annexure Q for full description of existing and proposed impacts, demonstrating that the expected mining extension impact is not a significant increase above existing impact.

(i) The existing quarry excavation (up to 2018) planning and operation included mitigation measures to reduce both topographical and visual impact, including:

- Scree deposit and plant area (refer Photo 2)
  While this area was and is not visible from outside the farm boundary, its completed operational rehabilitation (2012) resulted in both topographical and visual rehabilitation within the site, including reinstatement of the stream channel (refer Photos 3 and 4), with the area reintroduced into the surrounding wilderness area, subject to on-going alien vegetation control. Photo 4 illustrates the recent alien vegetation management on the stream east-bank.
- Hard rock excavation (existing)
  To reduce the permanent impact of the cliffed excavation in the western end of the mountain spur, the following mitigation measures have been put in place, some of which will be ongoing until mine closure:
  - Set-back of the south-western boundary of both the Mining Right Area and "limit of excavation" as per DME Inspectorate restriction and agreement. Such retention of the south-western rocky ridge-line has been successful in reducing the visual impact of the excavation (refer Photo 5).
  - Excavation method (i.e. buttress blasting) whereby as benches approach final perimeter positions, faces will be split to 5m high faces on 8,5m wide benches thereby providing a reduced visual impact compared to a single vertical high face (Photo 6).
  - Softening of the cliffed face by topsoiling of benches and planting of Fynbos species on such benches, as well as reliance on acid staining by seepage and lichen growth on the generally moist south-facing bench faces (refer Photo 6).
  - Retention of the north-west pillar (refer Photo 7) and its fencing off as a "no-go" area to provide a broader buffer (pillar) to the Montane Forest and waterfall, thereby not reducing visual amenity in such area.
  - Restricting height and slope of topsoil berms during "life-of-mine", together with seeding/ planting to achieve a "green" appearance (refer Photos 14, 15 and 16).
  - Removal of currently visible southern topsoil stockpiles and berms during topsoiling of the excavation benches post-mining.

(ii) Topographical and Visual Impact at Distance

While the application acknowledges the topographical impact and visual impact from nearby locations peripheral to Erf 1068 as illustrated in Photo 8, such impact is significantly lessened with distance when viewed with the naked eye as demonstrated in Photo 10 (view from R43 en-route to Gansbaai; +-6,4 km from the quarry); and Photo 9 (view from R27; 2,1km from quarry). Furthermore distant view impacts are often further lessened by ridge lines which hide the excavation from view (refer Photo 5). Accordingly, view shed impacts from the New Hermanus Harbour, Gearings Point, Grotto Beach and De Kelders (14km to 20km distant) as put forward by the Environmental Division of Overstrand Municipality, when viewed by the naked eye, even in ideal atmospheric conditions, comprise limited visible topographical disturbance distinction, with the only impact being that of scaring, differentiated by a lighter/ whiter shade compared to surrounding natural vegetation, also often not providing any clear distinction of use, given similar scaring due to farm dam walls, tracks, etc.

(iii) Colour/ Texture Impact

Having restricted the mine during its development to north of the southern ridge line and south of the northern line by demarcation with 2m long white poles placed along these lines, no mining has occurred across the ridge lines and in fact the southern ridgeline was moved several meters north to reduce the risk of the excavation breaking the southern ridgeline. Accordingly, with the ridgeline unbroken by the excavation, the visual impact which has occurred along the southern ridge line derived from the white soil (topsoil) berm placed for interim visual screening of activities and to serve as a stockpile for soils to be used in post-mining rehabilitation of the quarry benches. As such, these berms must remain until they are used as soil cover of the final internal quarry benches during closure rehabilitation. Given awareness of its initial visual impact (stark white against the green surroundings as seen in Photos 14 and 15), the berm was then planted with Carpobratus (sour fig) runners to green (darken) the exposed slope of the berm. The growth of this vegetation and its success of discolouring the berm is seen in the Photo 16, significantly reducing the medium and long distance view impact.

(iv) Hard Rock Excavation (newly approved)

An important informant to the siting of the Stanford Quarry extension is topography and resultant visual impact. The sensitive landscapes of the slopes within which the quarry is located were acknowledged, with the aim to extend the excavation with limited additional visual impact. In the planning of the excavation extension, much emphasis was placed on topographical characteristics in the extension area. Site visits revealed a definite break in contour at the 240m level, above which no mining will take place or the residual visible faces will be sloped, topsoiled and revegetated to eliminate visual impact. Photos 9, 10, 11, 12 and 13 compare the existing and extended quarry visual impact from the R43 (2,1km from the quarry), demonstrating no significant increase in the impact due to the extension.

Stream and Scree Area Reinstatement

Photo 2: Valley floor pre 2001-2012 rehabilitation

Photo 3: Rebuilding the western bank before cutting a new stream channel

Photo 4: The earlier re-established stream east-bank with rock armouring revealed during 2018 alien vegetation clearing

Topography and Excavation Method

Photo 5: Retention of ridge-lines

Photo 6: Restricting excavation face height and sloping of excavation edge (quarry rehabilitation example)

Photo 7: Retention of north-west pillar

Distant View Impact

Photo 8: Visual impact from nearby locations

Photo 9: View of existing quarry from R43 (2,1km from quarry)

Photo 10: View from R43 6,4km from quarry en-route to Gansbaai

Photo 11: Post-mining visual impact (existing and extension) given no rehabilitation

Photo 12: Post-mining visual impact (existing and extension) including slope rehabilitation but no rehabilitation of upper benches

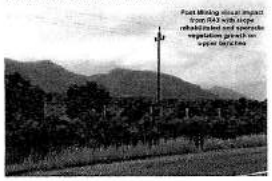


Photo 13: Artist's impression of post-mining visual impact given full rehabilitation

Photo 14: Southern berm after establishment

Photo 15: Contrasting "white" (topsoil) and green surrounding fynbos and Carpobratus establishment on topsoil berms along excavation edge

Photo 16: Southern berm after Carpobratus spreading

Accordingly, the Visual Impact Assessment (Annexure Q) confirms the following impact assessment rating and puts forward the following mitigation measures to reduce visual impact.

(i) **Impact Assessment Rating**

The ***existing*** visual impact is ascribed a rating of ***moderate*** because of the following factors and taking cognisance of the following as depicted in Photos 5-16:

- The Visual Catchment area is contained by natural ridgelines and despite the elevated location of the excavation, the Visual Catchment area is restricted to short portions of the TR2802 (R43) before and after Stanford. The upper face of the existing quarry is visible from at least 1 residence to the south-west (possibly to 2 more) at a minimum distance of 2.7km. Photo 9 shows the current view of the quarry faces from the R43 at a distance of 2.1km.
- View catchments are typically divided into three (3) Zones of Visual Influence (i.e. Foreground, Middle Distance and Background). Foreground measures about 800m, identifying detail, the Middle Distance measures up to 6 500m where colours, textures and patterns are still visible, and the Background Zone extends beyond 6500m, with only landforms visible at this distance. In this case the current visual impact from the R43 as well as surrounding residences are located in the Middle Distance. It is worth noting that the Municipality's environmental Section in their comments in respect of the Scoping Report included views from Hermanus and Die Kelders at distances of 15-20km. The visual impact was then shown as a dot on highly zoomed in photos. This is not a realistic assessment of visual impact and any visual impact of over 6.5km distant must be regarded as insignificant to non-existent. Such "Background Zone View Catchment" addresses the following concerns raised during the EIA/ EMP process:

The Environmental Section of the Overstrand Municipality in its letters dated 5 August 2016 and 16 September 2016 (refer Annexure K) **requests further clarity on the following issue regarding the draft EIA/ EMP:**

(i) ***"Not being in agreement with the visual impact assessment put forward in the EIA/ EMP given that the mining site is visible from further afield than indicated in such assessment."***

The Directorate: Development Management (Region 2) in its letter dated 27 September 2016 (refer Annexure I) **raises the following:**

(i) ***"Discrepancies around the findings and impact of the visual impact assessment of the development should possibly initiate a review thereof (i.e. EMPr, Municipality and I&APs)"***

- The Visual Absorption Capacity[1] is rated as follows. Note the higher the visual absorption capacity, the less visual impact will occur:
  - Very High for topography; given the presence of the ridges which hide sections of the proposed excavation for views from the south;
  - Very low for vegetation; given the presence of natural veld around entire area; and
  - Medium for Settlement Pattern, given the extensive agricultural land use practices which occur north of the R43 near to Stanford.

The quarry ***extension*** impact will increase the current visual impact levels, but only by a *marginal amount* given the shaping and revegetation of the upper and lower benches which will serve to break the hard cliffed faces generated by the excavation, and the upper sloped and vegetated excavation edge will reduce the face height of the excavation.

(ii) Mitigation Measures Required to Reduce Visual Impact

The following measures must be implemented to reduce visual impact to a minimum:

- The first step is to accurately demarcate the upper edge of mining at the site in terms of EIA/EMP project description. Absolutely no disturbance beyond that line is permitted. The demarcated edge must be demarcated by qualified surveyor in such a way that neighbouring markers are visible.
- The Mine Plan as per the EIA/ EMP has been developed in such a manner that maximum lateral extent is reached early in the mine extension's lifespan. This is required to ensure the development of the upper 1:3 slope for rehabilitation and to ensure access to the upper benches (and subsequent lower benches).
- The upper 1:3 slope is to be toposiled and revegetated as soon as it has reached its final configuration.
- Upper faces are limited in height to 5m high on 5m wide benches. The benches will be covered in topsoil and vegetated as per rehabilitation measures in the EIA/ EMP and section 4.3.1 of this report. This limted face height will enable the breaking of the hard face lines by the vegetetation.

(iii) Impact on Eco-Tourism

A 2011 study cited in the EIA/ EMP on the "Potential Impacts of the Liberty Quarry on the Tourism Industry and Property Values in Temecula, California", concludes the following:

- "There is no evidence to suggest that the presence of quarry operations will negatively influence regional hospitality, tourism and agri-business (i.e. vineyards) and or property values in the Temecula Valley"
- "There is no specific evidence to suggest that Quarry operations in the Coachella Valley, Napa Valley or the City of Corona harm property values over time in any direct manner"

2.8. Soil

The Soils are largely of Mispah type (i.e. shallow topsoil to weathered sandstone horizon). Topsoil seldom exceeds 300mm depth and is often not deeper than 150mm. The soils do provide marginal agricultural potential (AGIS, www.agis.agric.za) but are not used for such purpose anywhere near this site.

2.9. Land Capability

The land capability of the proposed 9ha extension area is Wilderness area.

[1] The extent to which other elements in the landscape may camouflage the development or absorb the impact (such as topography, vegetation or settlement patterns)

The **Western Cape Government: Department of Agriculture; Land Use Management** in its letter dated 4 July 2016 (refer Annexure J) **stated that *"the Western Cape Department of Agriculture has no objection against the mining right extension"*.**

2.10. Natural Vegetation

Figure 10 indicates the vegetation biomes on and surrounding the site[2]. The following description of the vegetation is copied directly from the botanical assessment report in Annexure P.

"The SA vegetation map (Mucina & Rutherford 2006) categorizes the vegetation at this site as Overberg sandstone fynbos (see plate right & Figure 2 below). This vegetation type is spread irregularly from Bot River and Hawston in the northwest to the Soetanysberg and Bredasdorp in the southeast including amongst others the Kleinriviersberg range.

The vegetation is restricted to low mountains, undulating hills and moderately undulating plains supporting moderately tall, dense restioid, ericoid-leaved and proteoid shrublands. The geology is acidic soils derived from Table Mountain Sandstone (Cape Supergroup).

Overberg sandstone fynbos is characterised by a very high diversity and rapid species turnover, over short distances. As a result there is high endemism and high numbers of rare and endangered species. The approximate original distribution of the natural vegetation on the property is shown in figure [10]".

The Directorate: Development Management (Region 2) (DEA&DP) in its letter dated 25 May 2016 (refer Annexure I) **commented on the draft Scoping Report, noting the following:**

(i) *"Vegetation on the site is Critically Endangered, not Least Threatened.*
(ii) *Regarding negative impact due to loss of critically endangered vegetation, comment from CapeNature and findings of Botanical Assessment be obtained.*
(iii) *If impacts associated with loss of critical endangered vegetation cannot be avoided or efficiently mitigated, an offset may be required (e.g. mitigation of visual impact in the event of unsuccessful mitigation)*

CapeNature: Scientific Services in its letter dated 26 September 2016 (refer Annexure L) **raises the following issues:**

(i) ***"Insofar biodiversity, the following is noted as per the draft Provincial Spatial Biodiversity Plan in preparation:***
  - ***The site is classified as CBA, with the footprint of the existing mine being CBA: Degraded. The natural vegetation occurring within the existing footprint and the proposed expansion is Overberg Sandstone Fynbos, listed as Critically Endangered.***
  - ***The disturbance footprint of the mining activities occurs within the riparian zone of a watercourse located on the western boundary of the existing quarry, with such impact occurring some distance downstream. The riparian area referred to is classified as a floodplain wetland and is a National Ecosystem Priority Area (NFEPA) wetland.***

(ii) Evidence of significant alien invasive infestation of the site, which appears to have been exacerbated by the mining activities, despite alien clearing activities within the mining area.

The National Department of Public Works (NDPW) in its email dated 15 September 2016 (refer Annexure M) **commented as follows:**

[2] Mucina and Rutherford (2012)

(i) ***"NPDW is objecting against the issuing of the EA due to severe/ irreplaceable harm that such an extension would cause to the biodiversity of the area and to the stream that feeds to Klein Rivier estuary. Further to the aforementioned that the existing mine is also situated within the Stanford heritage area"***

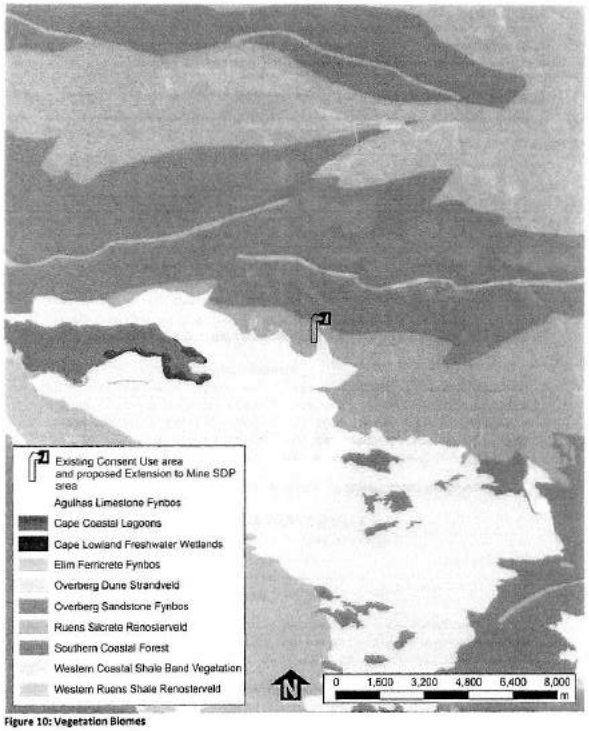


Figure 10: Vegetation Biomes

Furthermore the site is located within a Critical Biodiversity Area as per Figure 11.

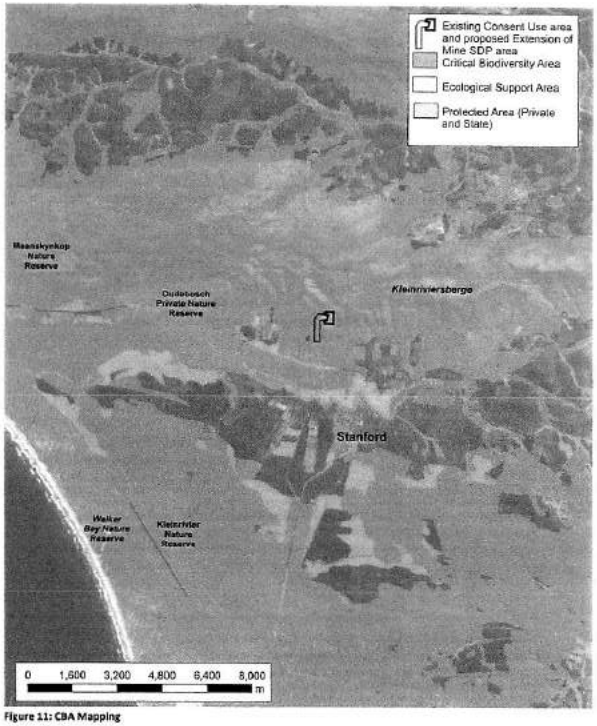


Figure 11: CBA Mapping

"According to Holness and Bradshaw 2010 Critical Biodiversity Areas (CBA's) indicates areas of land as well as aquatic features which must be safeguarded in their natural state if biodiversity is to persist and ecosystems are to continue functioning. CBAs incorporate: (i) areas that need to be safeguarded in order to meet national biodiversity thresholds (ii) areas required to ensure the continued existence and functioning of species and ecosystems, including the delivery of ecosystem services; and/or (iii) important locations for biodiversity features or rare species.

"At a national level this vegetation type has been categorized as critically endangered on the basis of its high number of threatened plant species associations (Anonymous 2009)[3]. According to Mucina and Rutherford (2006) the conservation target for this vegetation type of 30% has not been met with only some 6% statutorily conserved in the Agulhas National Park, Fernkloof, Babilonstoring, Salmonsdam and Coledon Nature Reserves. About 6% of this vegetation type has been transformed, primarily as a result of cultivation. As is the case in the vicinity of this property, alien vegetation poses the major threat to the vegetation type.

The natural vegetation within (and surrounding) the mining application area has high local (Stanford - Kleinriviersberge) and regional (Overberg) conservation value owing to its critically endangered status and high diversity and endemism.

"The following species of conservation concern were recorded:
- *Aulax umbellata* (Proteaceae) Near threatened
- *Protea aspera* (Proteaceae) Vulnerable
- *Leucospermum prostratum* (Proteaceae) Vulnerable
- *Serruria elongata* (Proteaceae) Near threatened"

In respect of impact of the proposed operation, Mr Privett noted the following:

"It is assumed that the proposed mining expansion will permanently impact the area involved. Direct negative botanical impacts of the mining expansion are expected to involve the loss of this allocated areas site vegetation and the loss of ecological processes associated with the vegetation type. Indirect impacts are those that may possibly be encountered during the operational phase of the mining operation including dust, noise and aesthetic impacts.

The site development plan indicated in Figure [2 & 3] shows the existing mining area and the proposed extension area to the east. The proposed extension authorisation area is 9.76ha and the actual excavation extension footprint is 2.56ha. This application area is largely within intact natural fynbos but, as can be seen in the aerial photograph (and image on the right [see appendix 4]), there was pine infestations over about half of the proposed extension area. These pines have been felled in the last year..., but the natural vegetation has been impacted by the past invasions and diversity in these areas is diminished. Overall the condition (and hence conservation value) of the natural vegetation in the proposed mining extension is medium for the lower 50% (past infested area) and high for the upper 50% (area never infested by aliens).

The direct impact of the proposed mining expansion will be:
(i) The loss of 2.56 hectares of Overberg sandstone fynbos. Of this approximately half (1.25 ha) has high conservation value and the remainder has medium conservation value.
(ii) The loss of individuals of at least four species of conservation concern
(iii) Potential impacts on ecological and evolutionary processes. However, from an ecological processes perspective, the impact will be relatively low as the area is surrounded by natural vegetation and landscape level connectivity and ecological and evolutionary functioning will not be not be seriously impacted in the longer term.

[3] But categorised as "Least threatened" in "Description of conservation status from NSBA" as contained in Mucina and Rutherford, 2012.

Overall the impact of the mining expansion within this area (given that the existing access routes are used and no further disturbance occurs outside of the mining application area) is ***medium negative****. Mitigation for the loss of the Overberg sandstone fynbos will be offset to some extent by Search and Rescue of all translocatable species from the expansion area, careful management of the topsoil before, during and after mining (to ensure adequate post-mining topsoil cover), successful post-mining rehabilitation (see [Section 4.1 for botanist specification] below), and a comprehensive post mining alien clearing program, including clearing a band of alien vegetation at least 50m outside of the mined area".*

2.11. Animal Life

Vast expanses of the same vegetation surrounding the site provide a habitat suitable for species typical of the area. These include rodents (rats, mice, shrews etc.), reptiles (snakes) birds and insects. The large scale of the habitat type when compared to the extent of the proposed activities negates any significance of any impact in this regard.

2.12. Surface Water

This site is located in Quaternary Drainage basin G40L which is in the Breede-Gouritz Catchment Management Agency's area of jurisdiction. Figure 12 depicts the drainage basin which is located on the approved and proposed Mining Right area. The basin measures 78.85ha and the proposed excavation extension of 2.55ha will have little or no impact on the surface flow regime.

Water sources on site are as follows:
- Potable Water: Purchased from town in containers, with volume requirements being limited.
- Processing water and dust suppression: Dust suppression water (i.e. mist sprays on plant and water cart wetting of road) takes place using water from the Good Luck Dam to the south with permission of the landowner. Water is umped via a pipe to the mine plant area.

This scope of the extended mining will not result in any increase in water use volumes but does require that the water use will continue during the extended life-of-mine.
The Mining Right holders compiled and lodged a WULA for the operation, supported by a Stormwater Management Plan and a Freshwater Ecosystem Impact Assessment according to DWS Guideline documentation. The Stormwater Management Plan is included as Annexure R and the Freshwater Ecosystems Impact Assessment as Annexure S, both forming part of the EIA/EMP.

Insofar the WULA application refer Annexure T for response from Breede-Gouritz Catchment Management Agency, with the following extract being relevant.

The Breede-Gouritz Catchment Management Agency in its letter dated 24 July 2017 (refer Annexure T) confirmed the following in its response to a water use authorisation and registration application submitted for Stanford Quarry dated 4 November 2015 by Afrimat Aggregates (Operations) (Pty) Ltd:
"that the water use falls within the gambit of the General Authorisation...therefore you may continue with the water uses as permissible...." These included:
- ***"Taking of water from Good Luck Dam for use of dust suppression and use in ablution facility (5082 m³/ a).***
- ***Upgrading of the road crossing"***

Additionally, the following conditions were noted:

- ***"The 30m buffer length recommended in the Risk Matrix must be implemented.***
- ***The Operational Phase mitigation measures given in the Environmental Management Plan must be implemented.***
- ***The abstraction of water from the stream to the Good Luck Dam must only be done when necessary."***

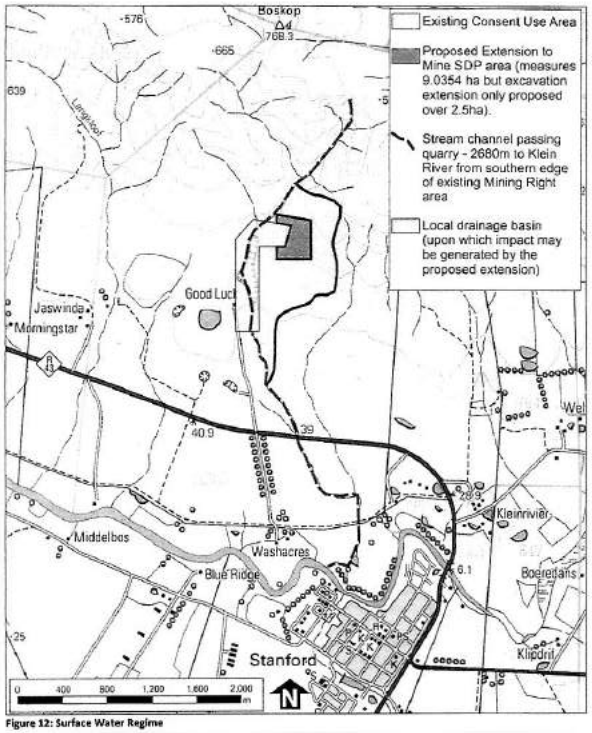


Figure 12: Surface Water Regime

The **Freshwater Ecosystems Impact Assessment** (refer Annexure S) identified the following mining impacts/ disturbances within the following stream reaches:

(i) The stream was divided into "Reaches A-D" with Reach A being upstream of the quarry, Reach B downstream of Reach A from in line with upper excavation to the existing low flow bridge across the stream, Reach C from the low flow bridge to in line with the lowest point of disturbance and Reach D, downstream of the quarry.

(ii) The study found that:
- Reach A was unmodified and in a natural state
- Reach B was moderately modified with loss of natural habitat and biota
- Reach C was described as largely modified (mostly as a result of earlier approved mining)
- Reach D does not appear to have been rated.

(iii) Reach B disturbances include:
- Loss of riparian habitat and thus loss of ecological function to accommodate excavation;
- Loss of buffer between disturbance and the channel with increased erosion;
- Excessive sedimentation of the channel due to unstable eroding banks and runoff of fine sediments from the excavation site;
- Loss of instream habitat due to fly rock and sediments

(iv) Reach C disturbances include:
- Complete change in bed and channel characteristics through removal of the alluvium during mining;
- Invasion by alien trees and thus a loss of habitat integrity;
- Sedimentation of the channel and runoff of silt laden stormwater from the road and crushing site.

The detail is available in Annexure S, with mitigation/ attenuation measures detailed elsewhere in this report.

The Directorate: Development Management (Region 2) in its letter dated 27 September 2016 (refer Annexure I) **raises the following:**

(i) ***"EIA process to include all the assessment of all environmental impacts associated with the development in order to establish whether the impacts can be avoided or mitigated. Accordingly all information and impact associated with the WULA must be included in the EIA.***

(ii) ***A freshwater assessment is requested.***

CapeNature: Scientific Services in its letter dated 26 September 2016 (refer Annexure L) **raises the following issues:**

(i) ***CapeNature, having been provided the opportunity, would have recommended that a freshwater specialist study should be undertaken in order to assess the additional impact and to provide recommendations to address the existing impact, including the impact on the estuary.***

(ii) ***Any further consideration of the application would require a freshwater specialist study and a more detailed rehabilitation plan including a single well-defined end-use that is acceptable from a biodiversity perspective."***

The Environmental Section of the Overstrand Municipality in its letters dated 5 August 2016 and 16 September 2016 (refer Annexure K) **requests further clarity on the following issues regarding the draft EIA/ EMP:**

(i) *The impacts of the current quarry site and future proposed sites on the stream and Klein Rivier and estuary are not indicated and must be assessed by a freshwater specialist*
(ii) *Clarification re application for a WULA for the mining site and current water use on the property".*

The Directorate: Development Management (Region 2) (DEA&DP) in its letter dated 25 May 2016 (refer Annexure I) **commented on the draft Scoping Report, noting the following:**
(i) *Confirmation of WULA requirement for use/ storage of surface water.*
(ii) *Requirement for a detailed stormwater management plan."*

The Environmental Section of the Overstrand Municipality in their letter dated 18 April 2017 (refer Annexure K) **comment as follows on the Freshwater Ecosystems Impact Assessment Report conducted in 2016:**
(i) *"Highlighting the impacts of mining resulting in the modification of the river reaches, as demonstrated by loss of riparian habitat, ecological function, in-stream habitat and habitat integrity, also noting sedimentation of the channel.*
(ii) *Noting the following mining activities resulting in impacts on the watercourse and its characteristics, without mitigation:*
- *Encroachment of excavation and loading platforms on riparian fringe*
- *Blasting of hard rock resulting in fly rock into the in-stream and riparian habitat*
- *Noise generated by blasting, drilling and vehicular activity in close proximity to the river channel*
- *Road crossing the river channel*
- *Encroachment of the stockpiling and crushing plant platform into the riparian fringe*

(iii) *Clarity required re current water-use of Stanford Quarry*
(iv) *Recommendations, including:*
- *Mitigation measures proposed by the Freshwater Study to alleviate the impacts on the freshwater ecosystem are strongly supported. A recommendation is made to the Town Planning Department and DMR that the implementation of these measures is set as conditions to the applicant.*
- *The formal monitoring as proposed in the Freshwater Study must be implemented on-site and must be assessed by an independent Environmental Control Officer.*
- *The current water use, without any approval must be reported to the Breede-Gouritz CMA, for future investigation"*

CapeNature: Scientific Services in its letter dated 13 April 2017 (refer Annexure L) **comment on the Freshwater Ecosystems Impact Assessment Report as follows:**
(i) "…. the ecological condition of the stream has been highly significantly impacted in the sections of the watercourse which pass through the mining activities….the current mining activities are impacting the entire length of the tributary downstream of the mining activity.
(ii) … the extension of the mine may result in impacts which are less significant than the initial mining activities, however since it forms part of the same project, the impacts as a result of all the mining activities need to be taken into consideration.
(iii) The Freshwater Ecosystems Impact Assessment has not provided a conclusion or recommendation.
(iv) Mining activities to-date have resulted in significant impacts, particular to the freshwater and estuarine environment, and therefore no expansion of these activities should be contemplated".

2.13. Ground Water

The site is located in Quaternary Basin G40L. In terms of this classification, the landowner is normally entitled to the taking of 400m³ groundwater / ha of land / year by virtue of General Authorisation[4]. However, as per Section 2.12 all the mine's water requirements are sourced from the Good Luck Dam and authorised by the Breede-Gouritz CMA.

Note that groundwater will in no way be affected or impacted by the proposed excavation extension, given the following:
- The elevation of the extension precludes any groundwater impact
- Once developed the extension excavation will drain via cut-off drains and the countouring of the benches and the floor to a silt trap pond prior to being discharged into the existing stream.

Furthermore it is noted in the September 2011 EPA site visit that no significant seepage after the winter was evident, but no doubt slow seepage (moisture) will suffice to encourage revegetation on the benches and faces in post-mining rehabilitation given the aquifer recharge rock volume above bench height. Additionally, the EMP's Hydrocarbon Management Programme (refer Section 4.3.3) includes measures to limit the risk of groundwater or soil contamination by fuels or lubricants during the mining period.

2.14. Air Quality (Dust)

Attention is drawn to paragraph 4.8.4 of the extract from SANS regarding recognition that certain enterprises need to operate within "band 3" by virtue of "the practical operation of the enterprise…" provided that the best available control technology is applied for the duration". Note that Band 3 in the following designation refers only to the very localised quarry confines. The impact of the dust may not occur above the band prescribed / recommended per band description label.

"DUST FALL STANDARDS SANS 1929:2004
4.8 Dust Deposition
4.8.1 General
The four-band scale to be used in the evaluation of dust deposition is given in 4.8.2 and target, alert and action levels indicated in 4.8.3. Permissible margins of tolerance are outlined in 4.8.4 and exceptions noted in 4.8.5.

4.8.2 Evaluation Criteria for Dust Deposition
Dust deposition rates shall be expressed in units of mg m² day-1 over a 30-day averaging period. Dust deposition shall be evaluated against a four-band scale as presented in Table 9.

Table 9 – Four-band scale evaluation criteria for dust deposition

Band number	Band description label	DUSTFALL RATE (D) (mg /m² /day ¹30-day average)	Comment
1	Residential	D < 600	Permissible for residential and light commercial.
2	Industrial	600< D < 1 200	Permissible for heavy commercial and industrial.
3	Action	1 200 < D < 2 400	Requires investigation and remediation if two sequential months lie in this band, or more than three occur in a year.
4	Alert	2 400 < D	Immediate action and remediation required following the first exceedance. Incident report to be submitted to relevant authority.

4.8.3 Target, Action and Alert Thresholds are given in Table 10

[4] General Notice dated 26 March 2004 still applies despite Notice 288 of 2012 which has not yet been finalised.

Table 10 – Target, action and alert thresholds for dust deposition

Level	DUSTFALL RATE (D) (mg/ m² /day ¹ 30-day average)	Averaging period	Permitted frequency of exceedances
Target	300	Annual	
Action residential	500	30 days	Three within any year, no two sequential months
Action industrial	1 200	30 days	Three within any year, no two sequential months.
Alert threshold	2 400	30 days	None. First exceedance requires remediation and compulsory report to authorities.

4.8.4 Margin of Tolerance

An enterprise may submit a request to the authorities to operate within Band 3 (ACTION Band), as specified in Table 9, for a limited period, providing that this is essential in terms of the practical operation of the enterprise (for example the final removal of a tailings deposit) and provided that the best available control technology is applied for the duration.

No margin of tolerance will be granted for operations that result in dustfall rates which fall within Band 4 (ALERT Band) as specified in Table 9.

4.8.5 Exceptions

Dustfalls that exceed the specified rates but that can be shown to be the result of some extreme weather or geological event shall be discounted for the purpose of enforcement and control. Such event might typically result in excessive dustfall rates across an entire metropolitan region, and not be localised to a particular operation. Natural seasonal variations, such as dry windy period during the Highveld spring will not be considered extreme events for this definition"

Existing dust sources at this site at present are:

- The crushing and screening plant.
- Vehicle and earthmoving equipment manoeuvring on unsurfaced areas.
- Drilling
- Blasting
- Wind generated dust off unsurfaced areas

Existing dust reduction measures include the following:

- Mist sprays on plant and screens (cannot be too wet as it clogs up finer screens)
- Wetting of haul roads and manoeuvring areas by water trucks
- Drills are supplied with dust extraction equipment
- Complete elimination of blasting dust is unlikely however, several aspects of blast design are incorporated to reduce dust (stemming depth, explosive quantity, powder factor, etc.). Also bear in mind that blasting only happens very occasionally.

2.15. Noise

National standards / recommendations:

SANS 0103 titled "The Measurement and Rating of Environmental Noise with regard to Land Use, Health, Annoyance and Speech....." and its recommended levels shall apply.

a) Recommended limits: Assuming working hours of between 06h00 and 19h00 which classifies as daytime, a recommended maximum noise level of 50dBA is set in terms of the table below, row b).

Type of district	Equivalent Continuous Rating Level for Noise ($L_{Req,T}$) - [dBA]					
	Outdoors			Indoors		
	Day-night ($L_{R,dn}$)	Daytime ($L_{Req,d}$)	Night-time ($L_{Req,n}$)	Day-night ($L_{R,dn}$)	Daytime ($L_{Req,d}$)	Night-time ($L_{Req,n}$)
RESIDENTIAL DISTRICTS						
a) Rural districts	45	45	35	35	35	25
a) Suburban districts (little road traffic)	50	50	40	40	40	30
c) Urban districts	55	55	45	45	45	35
NON-RESIDENTIAL DISTRICTS						
d) Urban districts (some workshops, business premises and main roads)	60	60	50	50	50	40
e) Central business districts	65	65	55	55	55	45
f) Industrial districts	70	70	60	60	60	50

(b) Expected community response

In terms of community response to noise, SANS recommendations are to be used as follows:

Excess dB above ambient	Estimated Community / Group Response	
	Category	Description
0	None	No observed reaction
5	Little	Sporadic complaints
10	Medium	Wide spread complaints
15	Strong	Threats of community / group action
20	Very Strong	Vigorous community / group action

In addition, the general noise industry rule of "ambient +7 dB" shall serve as a good indicator above which levels are generally "not acceptable".

Existing noise sources on site are as follows:

- Crushing and screening
- Drilling
- Blasting
- Vehicles and earthmoving equipment

Fortunately, the site is located sufficiently distant from any surrounding land use to generate any impact in this regard. However, in the event of complaints, "third party consultation and monitoring for all ground vibration and air blast monitoring work would be introduced, including monitoring using permanently installed stations (refer Section 4.3.7).

2.16. Ground Vibration

Maximum recommended ground vibration level for any structure is set at 12mm/s PPV. No reports /complaints of excessive ground vibration have been reported by the holders and it is highly unlikely that blasting will cause any structural damage to any of the surrounding buildings. Be that as it may, refer Section 4.3.6 for further details and management thereof given the presence of important historical sites and buildings within and surrounding Stanford Village.

2.17. Flyrock

The legal recommended distance limit where blasting is expected to have no impact in terms of flyrock is 500m. The current excavation is located 580m from closest on-site buildings and 1800m from closest surrounding buildings (i.e. outside of Mining Right area), although current blasting is located further north and no blasting is anticipated for the foreseeable future at a distance of less than 2000m from outside buildings.

No incidents related to fly rock have been reported. However it is essential that any blasting within 500m of any structure is subject to approved design parameters.

It is noted that blasting at the quarry only occurs at the most quarterly (i.e. once every 3 months), with only two (2) blasts having occurred during 2018.

2.18. Heritage

While the role of the Stanford Quarry in the greater Kleinmond-Hermanus-Stanford-Gansbaai tourism industry should be recognised (tourist routes, accommodation, tourist support facilities), the quarry management are critically aware not to jeopardize such tourism industry, with any additional visual impact at the proposed extension to be restricted and mitigated. Stanford Quarry recognises the sensitive landscape of the slopes within which the quarry is located and the role of the Overstrand mountain view-sheds in the cultural and working landscapes of Stanford and the estuary environs. Accordingly the location of the extension and the mining methodology to be employed are informed by and focus on restricting any additional visual impact through the following:

- Restricting mining between certain contour levels to reduce exposed mined areas, and retaining natural ridge-lines to protect view-sheds (refer Section 2.6, 2.7 and 3.2)
- Employing a mining methodology which facilities rehabilitation of the upper mined/ visually exposed areas during the mining period as opposed to only at post-mining, in order to reduce any visual impact at an early stage (refer Section 3.2)
- Employing an integrated rehabilitation programme to restore topographic form (e.g. sloped upper excavation edge) and natural revegetation, albeit modified by the development of the quarry

Additionally dust and noise mitigation is in place to limit their nuisance on the cultural landscape.

Furthermore, it should be recognised that tourists, both local and foreign, are well aware of quarries and their role in development, even within tourism areas, citing the following examples:

- The historic development of Stanford, as well as its current tourism attraction includes several landmark buildings (e.g. church, school, administrative offices and dwellings) built from shell-limestone, locally sourced nearby the town.
- Development in the Napa and Temecula Valleys in the Californian "winelands" has demonstrated that the visual impact (appropriately mitigated) from quarries developed in support of infrastructure development (including tourism) has no negative bearing on the international and local tourism industry in such valleys.

A Notice of Intent to Develop was prepared by heritage practitioner (archaeologist) Jonathan Kaplan (ACRM) and submitted to Heritage Western Cape on 18 March 2016, recommending that a heritage impact assessment was not required.

Heritage Western Cape (HWC) in its letter dated 29 March 2016 (refer Annexure G) **notified the applicant that: *"Since there is no reason to believe that the proposed expansion of mining facilities at Stanford Quarry, Erf 1069 Stanford, will impact on heritage resources, no further action under Section 38 of the NHRA (1999) is required".***

The National Department of Public Works (NDPW) in its email dated 15 September 2016 (refer Annexure M) **commented as follows:**

(ii) ***"NPDW is objecting against the issuing of the EA ..... that the existing mine is also situated within the Stanford heritage area"***

3. PROPOSED MINING AND REHABILITATION

3.1. Status of Existing Approved Operation as Background to Requirement for Extension

Figure 2 spatially depicts the following:

(i) The existing operation was approved in terms of the Minerals Act and underwent conversion process to align the right with the requirements of the Mineral and Petroleum Resources Development Act (28 of 2002, now amended).

(ii) The existing Mining Right Authorisation area measures 24.8ha and the following are already in place and approved in terms of earlier EMP, and are included herewith as part of the updated EMP for the existing operation:

- Logistical facilities (including office, small workshop and stores, diesel tank (bunded) and weighbridge), as per Photos 17 and 18
- Product stockpiling and maneuvering areas, as per Figure 2
- Processing plant as per Photo 20.
- Existing 3.5ha excavation (refer photo 19).
- Mined out alluvial pebble section (refer Section 3.2 and Photos 2, 3 and 4 for more detail)

(iii) Access to the site is via established intersection with TR28/2 (Stanford / Hermanus road), refer Photo 1.

It is noted that the previously approved EMP will be obsolete given the granting of the Extension of the Mining Right Area. Accordingly all existing activities are included in this document, despite their previously approved status.

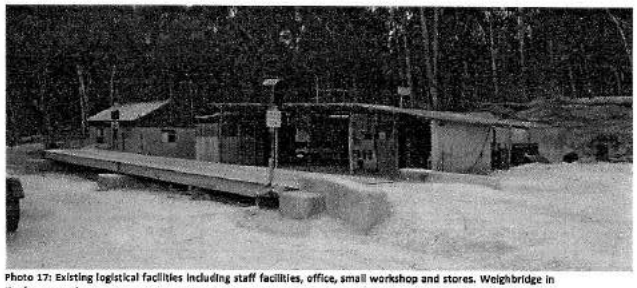


Photo 17: Existing logistical facilities including staff facilities, office, small workshop and stores. Weighbridge in the foreground.

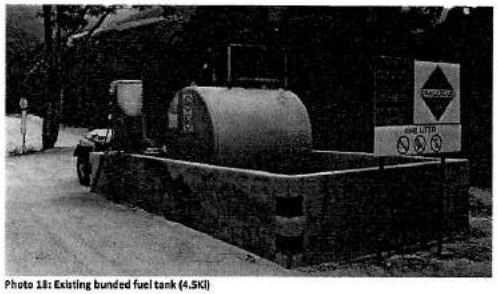


Photo 18: Existing bunded fuel tank (4.5Kl)

Photo 19: Existing excavation looking up from the stream crossing

The processing plant is a typical hard rock quarry crushing and screening plant, noting that there is no washing plant on site (refer Photo 20).

Photo 20: Existing processing plant on site

3.2. Description of Proposed Excavation Extension

Extension area approved:

The 9.7557ha approved extension area is as depicted in Figure 3. The extension activity consists of the expansion of existing excavation over a surface area of 2.55ha. The existing excavation measures approx. 2.5ha.

A broad based description of the phasing of the excavation extension is usually sufficient detail for this level / purpose of reporting however, full detail of the expansion with explanation of haul road routes (after Phase 1 access roads to benches and sub-phasing is included herein as it contains elements of integrated rehabilitation critical to reduction / mitigation of visual impact (in temporal and spatial sense)).

3.2.1. Excavation planning informants

Certain aspects of the environment dictate any excavation extent. These may differ from quarry to quarry and in this case, the following aspects were considered and incorporated where necessary into the mine plan:

(i) Alternative sites: Briefly the following applies: Several potential sites were prospected, including the Afdaksrivier Farm (deep overburden), the dis-used Mount Horeb quarry (located in a conservation area), Gansbaai area (exposed slope with more severe visual impact consequences), Shaw's Pass area (long gravel haul road), Hemel-en-Aarde Valley (moist ground conditions) and Erf 1068 Stanford (suitable and accessible deposit). On Erf 1068 sandstones are faulted along the scarp, located against the granite which underlies the scree slope between the foot of the mountain and the R43

(ii) Always the most important informant is geology, for without adequate quality material, no mining can take place. In this case, the combination of the rock quality visible in the existing face, the 270° strike of the material along the proposed expansion direction as well as surface outcrop of material provide reliable information as to the suitability of the material for future face advance.

(iii) In this case a further informant was topography and visual impact. The sensitive landscapes of the slopes within which the quarry is located were acknowledged, with the aim to extend the excavation without any additional visual impact.

In the planning of the excavation extension, much emphasis was placed on topographical characteristics in the extension area. Site visits showed a definite break in contour at the 240m level, above which no mining will take place or the residual visible faces will be sloped, topsoiled and revegetated to eliminate visual impact. This aspect is dealt with in detail in the mine planning and bench shaping in the following sections.

There are no surface water features or any botanical aspect which informed the mine plan in this case (despite being located within CBA), except for disallowing westward expansion of the quarry excavation.

CapeNature: Scientific Services in its letter dated 26 September 2016 (refer Annexure L) **raises the following issues:**

(i) More detail required why alternative sources of material cannot be utilized.

3.2.2. Proposed Site Layout / Mine Phasing

Refer Figures 13, 14, 15 and 16 and Table 1 in Section 3.5 showing expected lifespan of each phase.

As the application is limited to the extension of the existing excavation towards the east to increase the reserve, the mine plan update entails:

(i) No change in production/sales but only an extension of the life of mine
(ii) No change to the crushing and screening plant on the stockpiles nor the logistical facilities of office workshop, stores, personnel amenities, weighbridge or bunded diesel tank installation; but

Simply the advance of the excavation's east faces to towards the east within the topographical area determined to limit the visual impact prior to the mountain thereafter rising steeply to the east.

(i) Phase 1a Establishment Phase (Phase 1a of extension)

As per Figures 13 and 14, Establishment Phase 1a entails the following

- Retain and upgrade existing haul road to bench 205
- Maintaining the current totally inward draining system for the entire excavation
- Upgrade and maintain stormwater management channels and ponds within the total excavation area including:
  - Install side drains and cut off plains
  - Retention ponds
  - Gabion lined discharge channel to stream
- Continue to mine bench 205 for hard rock,
- Split south haul road from bench 205 to bench 210 and as establishment phase ring haul road for Phase 1b bench establishment
- Remove 300 mm topsoil from Phase 1 extension area to:
  - To direct use in topsoiling existing disturbances outside the future mine excavation
  - to designated 2 topsoil stockpile areas on bench 220 and outer side of establishment ring haul road

(ii) Phase 1b Bench Development

As per Figure 14, bench development of Phase 1b consists of:

- Development of benches at levels 230 m, 225 m, and 220 m with 5 m faces in soft weathered material; and
- 210 m with 10 meter face to begin to enable advance of bench 205 in clean fresh rock below 210 m
- Develop perimeter haul road for phase 2 extension by:
  - Survey of alignment
  - Removal of topsoil to outer perimeter topsoil berms and
  - Removal of topsoil to extension area

(iii) Phase 2a Bench Development

Given the total topographical distance and the implications for haul road development the mine plan depends total on maintaining the existing haul road and established haul road to the serve the mining and hauling of the material from each of the benches in a strictly top-down sequence (without exception together with its top-down mining, strict enforcement of the rehabilitation of each bench before the end of its mining must take place) again on a top-down basis in order to ensure that the upper mining bowl is rehabilitated progressively prior to loss of haul road stability by premature lower bench development

As per Figure 15, bench development of Phase 2a consists of:

- Develop benches at 5 m face heights at bench level 240 m, 235 m, 230 m and 225m and at 10 m face heights at bench levels 215m, 205m and 195m
- Advance benches levels 235 m to 195 m to final perimeters

- *Phase to 2a benches to be developed from top down with simultaneous rehabilitation of each final face and bench as they progress downwards, leaving the final benches and faces above level 195 fully rehabilitated by end of phase 2a*

(iv) Phase 2b deepening of the total excavation (refer Figure 16)

As per plan 2b, bench development of phase 2b consists of:

- The establishment of benches at 10 m interval from top down from 195m to 145m

Full TOPSOIL HANDLING METHODOLOGY AND PROGRAMME is contained in Section 4.3.1

3.3. Bench and Face Planning

The hard rock quarry will be mined in the tried and tested method: Drilling and blasting with mucking out of shot rock at the face by excavator or front end loader to haul truck for hauling to the plant where the material is crushed and screened to meet market demand.

Final bench dimensions of the excavation (as shown in Diagram 1 and Figures 13, 14, 15 and 16) above are as follows:

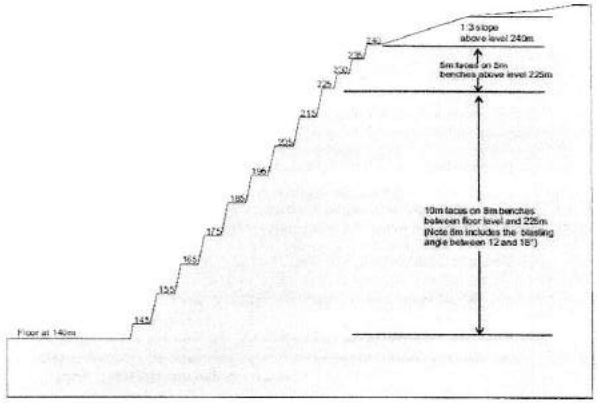


Diagram 1: Bench Elevation and Face Heights

3.4. Mine Site Development Plan

Figure 17 represents the **Revised Mine Site Development Plan (2018)**, totalling 33.8342ha on Erf 1068, with such plan spatially depicting the following components for **both the existing quarry and its extension:**

(i) Operational areas (i.e. mining), excavation areas (existing and extension), processing areas (i.e. crushing, stockpiling, loading, dispatch), logistics areas (e.g. administration, management, personnel facilities), buffers, and historical and operational rehabilitation areas.

(ii) Mine infrastructure, including fixed equipment/ machinery (e.g. crusher, weighbridge, diesel tank) and services installations (e.g. stormwater management, water supply), haul road, access road, stream culvert, etc.
(iii) A 30m buffer (building line) along the Erf 1068- Erf 1069 property boundary, with such buffer further enhancing the "no-go" area between the excavation and the Erf 1069 boundary.

3.5. Programme of Phasing

The following is based on sales of 48 000m³ tight as contained in the Mining Work Programme submitted with the EIA/ EMPr.

Table 1: Phasing

Phase	Volume (tight m³)	Lifespan in years
1	222 695 m³	4.6
2a	384 231 m³	8.0
2b	1 054 280 m³	21.9

The important point to take from the Table 1 and Figures 13, 14, 15 and 16 is that:
(i) Minor if any visual impact in the first 4.5 years as the upper edge of the operation is contained below level 235m - Note that the upper edge of the workings will be visible
(ii) All disturbances of the upper faces above level 205 will have been completed by year 12.6.

In other words, by year 12.6 *at the latest* in terms of this programme, the upper 1:3 slope will have been sloped and topsoiled[5]. All benches above level 225 will have been spilt into 5m faces on 5m wide benches, and topsoiled and vegetated and that no topsoil berm above the upper face will remain.

[5] This will most likely be much sooner given the mining down to level 205m also included in the Phase 2a plan. The rehabilitation of Phase 2a upper faces could occur as early as year 7, but a more conservative year 12 is assumed in the EIA/EMPr.

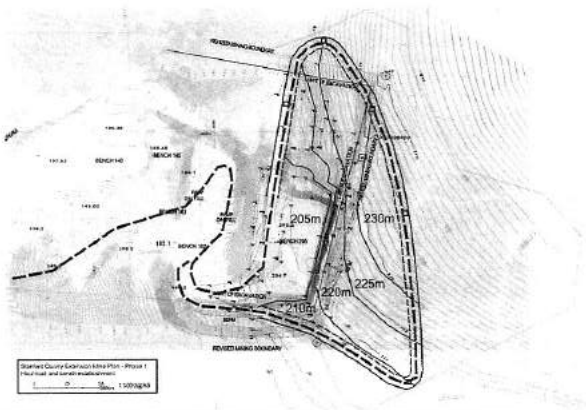
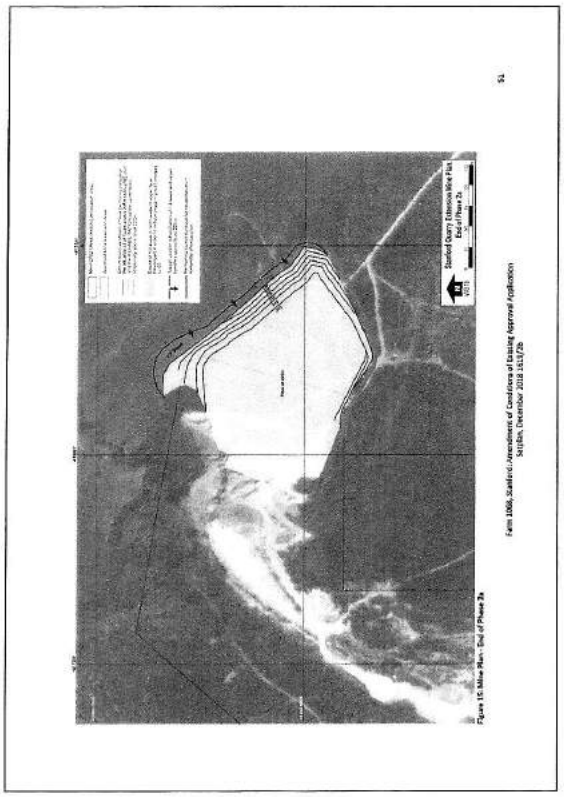
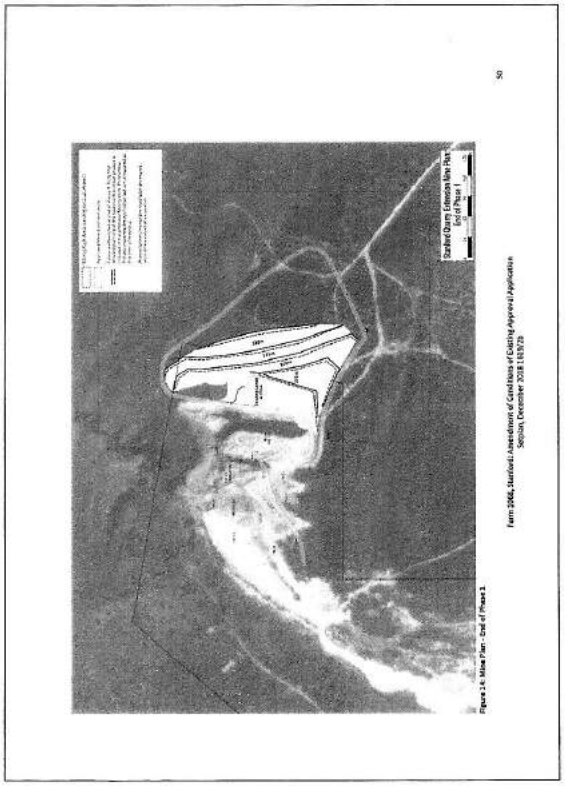


Figure 13: Phase 1 Bench Establishment and Haul Road (all takes place below level 230m (i.e. additional 8m of faces exposed above current levels)





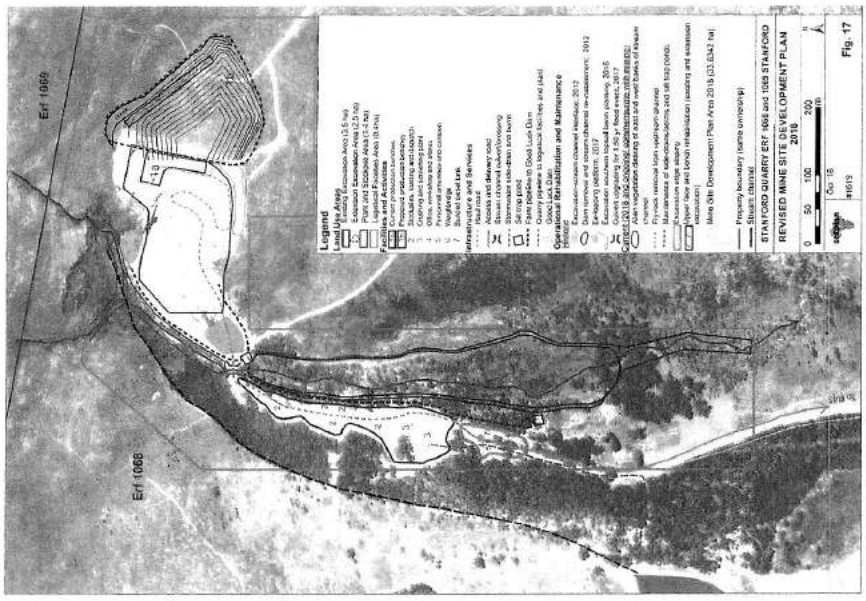


Figure 17: Revised Mine Site Development Plan (2018)

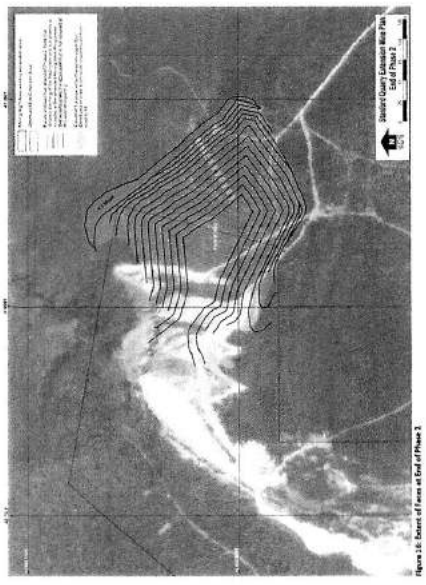


Figure 16: Extent of Faces at End of Phase 2

3.6. Hard Rock Quarry Rehabilitation

3.6.1. Operational Rehabilitation

Operational Rehabilitation of the extended quarry will comprise two components, namely:

(i) On-going rehabilitation/ maintenance/ housekeeping of all the support components to the quarry, namely:

- Stream channel maintenance including alien vegetation removal, debris removal and removal of any rock material deposited in the stream-bed
- Maintenance of the piped culvert and its embankments
- Maintenance of processing plant area and logistical facilities area (inclusive of hydrocarbon management)
- Maintenance of the access/ delivery road and haul road
- Maintenance of the stormwater management system including side-drain berms and silt trap ponds

(ii) Excavation rehabilitation including:

- The shaping, top-soiling and seeding/ planting of the upper benches (i.e. 5m benches above 225m) and the upper 1:3 north-east slope above 240m, with the extent of the 1:3 slope in the north-eastern upper face rehabilitated/ developed in order to eliminate visual impact from the R43 to the south-east (refer Figure 15: Extent of Faces at End of Phase 2a)
- Maintenance of the topsoil berms along the north-east and south-west edge of the excavation
- On-going development of the haul road, its maintenance and stormwater management within the excavation

3.6.2. Decommissioning Rehabilitation and Closure

The closure objectives are as follows:

- The overall objective is to leave a site that can form part of the surrounding wilderness area.
- The logistical facility, stockpiling and processing plant area must be shaped to mimic natural contours and revegetated to match surrounding vegetation
- The rehabilitation of the excavation and all other areas must take place in such a way that eliminates potential siltation of the stream channel
- Residual visual impact of the upper faces must be kept to an absolute minimum.

(i) Excavation Rehabilitation

- At the time of closure, the upper NE slope and upper benches (above 230m) should already have been rehabilitated as part of Phase 2a
- Replace topsoil on remaining benches and floor of excavation as each bench reaches its final location, this being mostly an operational rehabilitation exercise, including the existing excavation.
- Retain stormwater management system as per Section 3.4 and Annexure R
- Post-mining alien clearing programme, including clearing of alien vegetation in a band of at least 50m outside the mined area

(ii) Logistical Facility Rehabilitation

- Demolish all unrequired structures

- Remove all processing plant and steel structures
- Remove all protruding foundations and footings
- Remove all pipelines and cables
- Level ramp area
- Remove diesel tank and decontaminate
- Remove weighbridge concrete structures
- Rip/ scarify all hardened areas
- Replace topsoil in the plant, stockpile and logistics area
- Re-vegetation plant, stockpile and logistics area by seeding
- Retain access roads for future use

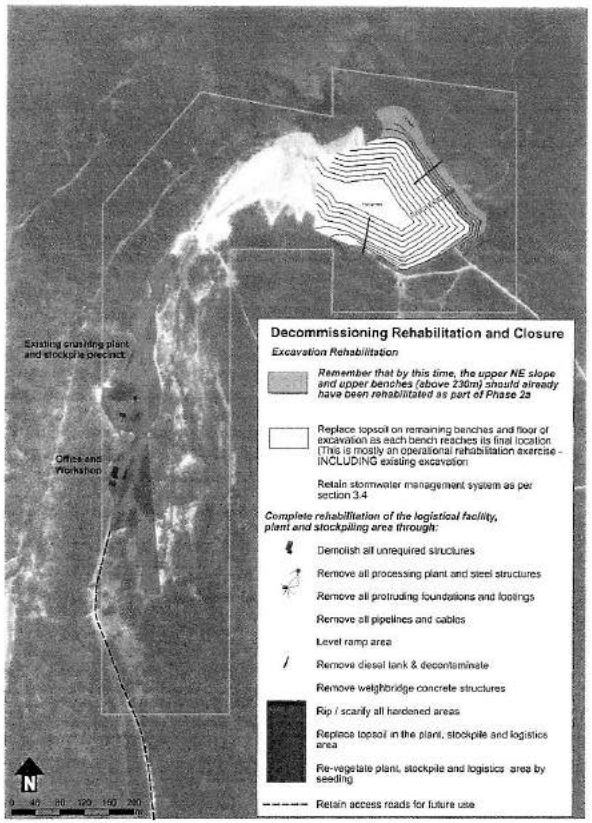


Figure 18: Rehabilitation Plan

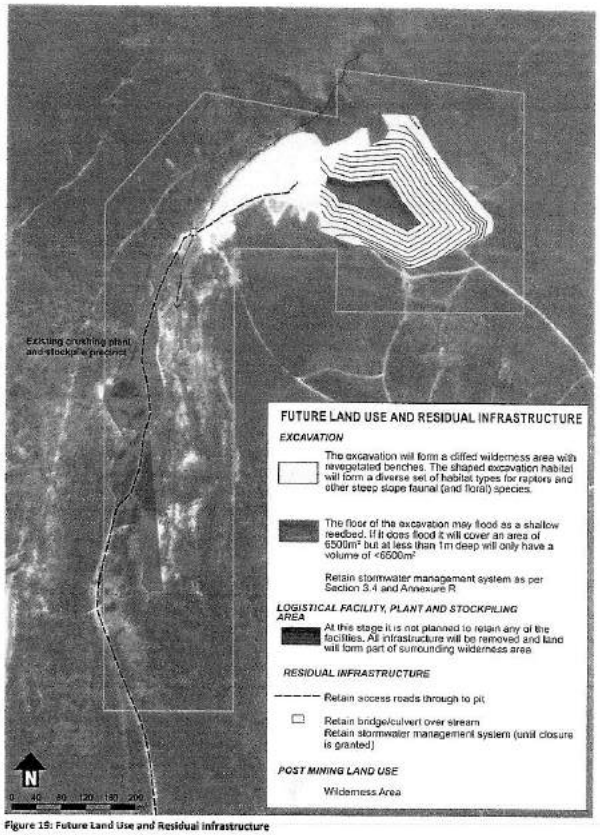


Figure 19: Future Land Use and Residual Infrastructure

3.6.3. Future Land Use and Residual Infrastructure

(i) Excavation
- The excavation will form a cliffed wilderness area with vegetated benches. The shaped excavation habitat will form a diverse set of habitat types for raptors and other steep slope faunal (and floral) species.
- The floor of the excavation may flood as a shallow reedbed. If it does flood it will cover an area of 6500m² but at less than 1m deep will only have a volume of <6500m², being a suitable habitat for water fowl.
- Retain stormwater management systems as per Section 3.4 and Annexure R

(ii) Logistical Facility, Plant and Stockpiling Area
- At this stage it is not planned to retain any of the facilities. All infrastructure will be removed and land will form part of surrounding wilderness area

(iii) Residual Infrastructure
- Retain access roads through to pit
- Retain culvert crossing over stream
- Retain stormwater management system and maintain until closure is granted

CapeNature: Scientific Services in its letter dated 26 September 2016 (refer Annexure L) raises the following issues:

(i) ***Post-mining end-use of the mining activity has not been described.***

(ii) ***Any further consideration of the application would require ..... a more detailed rehabilitation plan including a single well-defined end-use that is acceptable from a biodiversity perspective."***

4. IMPACT MANAGEMENT PROTOCOLS AND ACTIONS

The Environmental Impact Assessment Report and Environmental Management Programme Report, together with departmental comment (refer Annexures B, C, G-O, and T) forthcoming from the Department of Mineral Resources, CapeNature, National Department of Public Works, Western Cape Government; Department of Agriculture, Western Cape Department of Environmental Affairs and Development Planning: Directorate Development Management – Region 2, Department of Agriculture (WCG), Western Cape Department of Roads and Public Works; Road Network Management, Heritage Western Cape, Regional Land Claims Commission, Overstrand Municipality: Environmental Section and Breede-Gouritz Catchment Management Agency highlighted several potential impacts, including;

4.1. Negative impacts / risk to the environment

The following negative impacts emanating from mining activities as identified by the Freshwater Ecology Study (refer Annexure S), with the significance of the impact also put forward by the study:

(i) ***Activity: Encroachment of the excavation and loading platform into the riparian fringe***

Impacts to aquatic ecosystems include:

- The loss of riparian habitat along the left had channel bank (east of the river) in the reach upstream of the road crossing. All natural vegetation has been lost in this reach along the left bank and thus the habitat integrity, refuge value and corridor functionality of this river reach has been altered. Although this negative impact is local it is of medium to high intensity because the river is one of the only perennial tributaries along the southern slopes of the Kleinrivierberge that would function as a corridor linking the mountains with the lowland area and such ecosystem functionality has been severely altered. It is therefore a ***negative impact of high significance***

- The loss of a buffer between the disturbed area and the channel and thus erosion of the channel banks due to changes in the pattern of hillslope runoff. This impact is considered site specific and of medium intensity but will endure in the long term and is therefore a ***negative impact of medium significance***
- Increased inputs of fine sediments (silt) into the river channel and thus a degradation of the instream habitat. This in turn has led to a loss of habitat diversity and it is likely that the diversity of instream fauna has also decreased at the expense of taxa that are tolerant of unnaturally high levels of sediments. Loss of habitat due to sedimentation extends beyond the site but not more than 5 km downstream and it would not severely affect the corridor functionality of the channel. The impact is therefore local but of medium to high intensity and will ensure in the long term. It is therefore a ***negative impact of high significance***

(ii) ***Activity: Blasting of hard rock resulting in fly rock into the instream and riparian habitat. Impacts to aquatic ecosystem include:***
- Destruction of instream habitat through the introduction of large boulders and rock from the hill slope. This in turn would have resulted in the loss of aquatic faunal diversity and the use of this area by aquatic and semi-aquatic fauna as a corridor or refuge habitat. This impact is considered local but of medium to high intensity and is thus a ***negative impact of high significance***
- Alteration in the local hydraulics of the system, particularly during high flow conditions due to alteration in the bed character. This could lead to (and has already resulted in) increased erosion of the channel banks. It is therefore a site specific negative impact of medium intensity which is considered of ***medium significance***

(iii) ***Activity: Noise generated by blasting, drilling and vehicular activity in close proximity to the river channel- Impact to aquatic ecosystems include:***
- Increased disturbance to aquatic and semi-aquatic fauna due to blasting and vehicular activity in close proximity to the river channel. Disturbance may prevent certain species from using this area altogether and thus this impact would be considered of medium to high intensity in the long term at a local scale. It is therefore a ***negative impact of high significance***

(iv) ***Activity: road crossing the river channel Impacts to aquatic ecosystems include:***
- Changes in the hydraulic functioning of the river system. The pipes act as obstacles to the natural flow of the river system and thus a change in the quality of habitat for aquatic fauna. Also the road crossing prevents the flushing of accumulated sediments and thus exacerbates the problem of siltation and loss of habitat.
- Erosion from the road has led to sedimentation of the channel downstream of the crossing.

Both these impacts are considered of ***high significance***

(v) ***Activity: Encroachment of the stockpiling and crushing plant platform into the riparian fringe***

Impact to aquatic ecosystems include:
- the loss of riparian habitat along the right hand channel bank (west of the river) in the reach downstream of the road crossing where the river has been rehabilitated following removal of the instream dam system using during the phase 1 mining operations. The platform has resulted in a particularly steep right hand bank which is heavily infested with alien trees (particularly *Acacia spp.*) the refuge value and corridor functionality of this area has therefore been somewhat altered and thus the impact is considered local, of medium intensity in the long term. It is therefore a ***negative impact of medium significance***

- Increased inputs of fine sediments (silt) and gravel (crushed stone) into the river channel and thus a degradation of the instream habitat. Although a cut-off drain extends along the length of the platform between the channel and the mining footprint, these efforts at managing stormwater on the site are ineffectual and there is evidence of crushed stone and silt from the platform, possibly mobilised during storm events, in the channel. This in turn has led to a loss of habitat diversity and it is likely that the diversity of instream fauna has also decreased at the expense of taxa that are tolerant of unnaturally high levels of sediments. This impact is local but of medium intensity and will endure in the long term. It is therefore a ***negative impact of medium significance***
- Water quality alteration due to runoff from stockpiles into the channel. The lack of a buffer between the disturbed area and the channel, together with an unnatural steep channel bank which has lost a significant cover of indigenous riparian vegetation has resulted in poor quality runoff from the plant into the channel. Although attempts have been made to minimise these impacts through the creation of a cut-off drain, these measures are ineffective at managing runoff. This impact is considered local and of medium intensity but will endure in the long term and is therefore a ***negative impact of medium significance***

While the aforementioned impacts also reflect departmental and I&AP identified impacts, the following reflects a **summary of negative** impacts:

- Visual impact, noting that the expected impact in respect of visual exposure of the extension has been upgraded from moderate to significant, but only because the widespread comments received in this respect. The actual increase in visual impact will be a marginal increase above existing impact (refer Annexure Q)
- Impact on eco/green tourism
- Impact on vegetation and biodiversity
- Desirability in terms of Municipal SDF and IDF documentation and policies (as well as the overlay zones still in the compilation phase).
- Surface water impact, specifically siltation of the Klein Rivier and Hermanus Lagoon
- Lack of rehabilitation of existing site in the past
- Other less significant impacts in terms of noise, dust and hydrocarbon impacts

4.2. Positive impacts including;

- Usage of an existing mine, thereby eliminating an additional mining footprint impact elsewhere
- Employment for staff (12 at the mine), together with local community benefits emanating from Afrimat (Pty) Ltd's Corporate Social Responsibility and the mine's Social and Labour Plan
- Supply of hard rock construction material to an important regional/national/ international development and tourism destination
- Reduced impact of the transporting of sand from distant sources on the existing public road network and on public user road safety.
- Rental income to the landowner
- Royalty payment to the State
- Specialist studies provided (heritage, freshwater ecosystems, botanical), providing benchmarks for future mining and rehabilitation

Accordingly, the **Environmental Impact Statement** put forward the following **impact management objectives and outcomes** identified in the EMP:
Impact management objectives, including:

- To limit visual impact of the proposed extension to such a level as to not impact on surrounding user's views.
- To minimize any perceived impact of visual impact on eco/ green tourism industry, despite study (Annexure Q) which shows that no such impact exists.
- To reduce impact on biodiversity given location of site within CBA and Critically Endangered biome
- To ensure that the proposed extension does not[6] contravene policies of local / municipal SDF, IDF, Overlays and other policy documentation
- Elimination of any possible siltation of the Klein Rivier Estuary
- Limit any environmental nuisance factors resulting from continued quarrying of this site
- To have community representation in the Environmental Management System

Impact management outcomes, including:

- Ensure that mine plans and integrated concurrent rehabilitation takes place as per Mine plan phasing in Section 3.3.2
- Minimise lateral extent of excavation and maximize depth of excavation to limit spatial impact on biodiversity
- Implement Stormwater Management system to trap any silt generated off denuded surfaces before it reaches any natural water resource
- General site husbandry must be of the highest order and management must be fully *au foit* with content and measures prescribed in the final EIA/EMP.
- A transparent Environmental Management system with community representation on a Monitoring Committee.

Accordingly, the following aspects were identified for inclusion as **conditions of authorization and approval (i.e. EIA and EMPr)**, including:

- All aspects and measures prescribed in the EMP must be strictly applied.
- Applicant must provide proof of all attempts to establish a community involved Monitoring Committee and must present minutes of future meetings in Environmental Audit Reports.

The **Environmental Impact Statement** therefore puts forward the following **key summary findings of the Environmental Impact Assessment:**

- Mining commenced in the 1996 as alluvial pebble operation and was soon escalated to hard rock quarry to serve the market.
- The previous alluvial mining has been completed and rehabilitated as per proposals in 2002 EMP amendment
- All facilities required to operate the site are already in place and no changes are required except for the implementation of a stormwater management plan to eliminate potential siltation of the stream channel.
- In the EMP public participation process the major concerns related to :
  - Visual impact
  - Impact on eco/green tourism
  - Impact on vegetation and biodiversity
  - Desirability in terms of Municipal SDF and IDF documentation and policies
  - Surface Water impact, specifically siltation of the Klein Rivier and Hermanus Lagoon
  - Lack of rehabilitation of existing site

[6] Despite these policies' lack of setting aside suitable areas for hard rock construction materials sourcing

4.3. Impact Management Protocols and Actions

The following impact management protocols and actions be put in place to manage and mitigate potential environmental impact as a result of the proposed mining activity:

4.3.1. Topsoil Handling Methodology

The management of topsoil is of utmost importance. Without topsoil management, the disturbed area is subject to several other potential long term impacts such as lack of revegetation or extended revegetation time, dust generated off denuded areas and prolonged visual scarring.

"The storage of topsoil, however done, is problematic because soil fauna and michorrhiza in the topsoil decline with storage time (Haigh, 2000). The storage of the topsoil is, however, important in terms of the composition of the organic material, however old, which will be needed to "kick-start" the rehabilitation process with the addition of some kind of organic mulch. Topsoil must be stored in long, low berms, rather than in huge piles. Wetting (rainfall) and aeration of the stored topsoil must be maximized" – K Coetzee, 2015.

(i) Topsoil stripping

Successful rehabilitation is dependent on careful management of topsoil. Generally some 70-80% of all plant species found on site can return if topsoil is conserved and replaced following mining.

Topsoil stripping is to takes place ahead of mining by excavator/dozer. The process will entail:

- The selection of area where topsoil is to be removed; should be no more than 25m ahead of mining
- The initial removal of all alien vegetation – no use of herbicide in this type of alien vegetation removal (only mechanical means).
- Conduct sweep of proposed topsoil removal area for plant species to be relocated (Refer Section 2.10)
- Conduct sweep for any archaeological artefacts and slow moving animals.
- Removal of topsoil to full depth along with all remaining vegetation content.

Topsoil will be stored in berm above or below *final* face advance (dependent on time of removal as per paragraphs below) for use in rehabilitation of benches and other disturbed areas.

(ii) *Topsoil storage*:

Topsoil will be stockpiled in berms along excavation edge for use in rehabilitation during decommissioning rehabilitation. Such topsoil berms are to be restricted to 1.5m height and may be as wide as required. The reason for the 1.5m height restriction is to preserve as much of the natural seed bank as viable. Side slopes of the berms must be sloped to minimum 1:2 to prevent wind and water erosion of the slopes. Should wind erosion become an issue, it is imperative that brushwood packing using indigenous species (and not Alien vegetation) take place on the topsoil heap or use of shade cloth netting be put in place.

(iii) Returning topsoil

Topsoil to be replaced over prepared areas to a minimum of 15cm depth. The preparation of such areas entails the following:

- 1:3 slope above level 240m. Topsoil to be replaced to 15-20cm and may need stabilization to prevent slumping (although unlikely). Stabilization can take the form of stakes, perpendicular boards, geotextiles, etc.
- Benches: As soon as benches will no longer be required (including for access to the pit), then such benches can be covered with 30-40cm topsoil.
- Excavation floor: May not require topsoil as it will flood to shallow depth. If no flooding will result, then topsoil with thin layer of topsoil (5-10cm thick)
- All other activity areas (i.e. office, logistical facility area, plant and stockpiling area) must be ripped (if possible) and covered in min 10cm topsoil cover to serve as growing medium

It is critical that returned topsoil be subject to revegetation methodology below.

(iv) Topsoil removal programme

Figure 20 indicates where topsoil must be stockpiled per phase.

Phase 1 topsoil (i.e. up bench level 230m) must all be stockpiled below the excavation (i.e. SW and SE of the excavation). Such topsoil will be in place for a lengthy period). Phase 2a topsoil must be stockpiled to the North of the proposed excavation extent.

This programme also allows for topsoil to be used more or less in the same area from which it was removed as well as providing the "freshest" topsoil to the area that needs most rehabilitation (i.e. upper faces and slopes of Phase 2a).

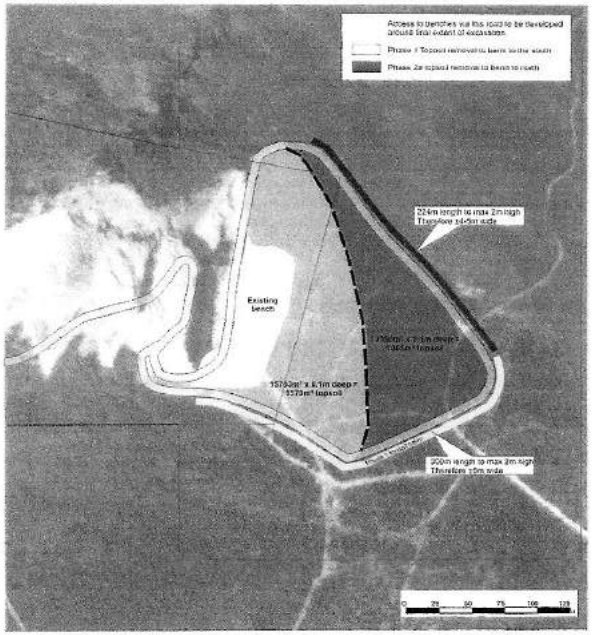


Figure 20: Topsoil Stockpiling by Mine Phase

The rehabilitation of Phase 2a upper faces could occur as early as year 7, but a more conservative year 12 is assumed in this report. Whichever is the case, the rehabilitation of the upper 1:3 slope and the benches above level 225m in the north-east and South east must take place as soon as they are ready for rehabilitation.

The rehabilitation of the SW slopes will take place before access to those benches is compromised and the floor will be topsoiled (if contemplated) as part of decommissioning rehabilitation.

4.3.2. Vegetation

The following section is copied from the Specialist Botanist Report as contained in full in Annexure P.

The aim of the rehabilitation process will be to attain 80-100% cover within three years with moderate species diversity (at least 50% of current diversity on site). A major threat to long term rehabilitation will be the potential for alien plant infestations (especially *Pinus sp*), which are common in the vicinity.

The key to rehabilitation success in mining in fynbos areas is the proper management of topsoil. The majority of fynbos plants are reliant on soil-stored seed or underground organs within the top 300 mm of soil for regeneration following fires. As such, careful topsoil management is an essential component of any fynbos rehabilitation project.

Topsoil should be removed and stockpiled to a depth of 300mm (if possible). This material should be stored adjacent, or within close proximity, to the area from which it was removed to ensure that each section retains localised soil and seed/geophytes for use on appropriate sections during rehabilitation. Ideally a phased approach should be implemented whereby soil is stockpiles and re-spread on slopes within a year of initial removal. Sandstone fynbos is characterised by very shallow soils and from experience I know that rehabilitation seldom succeeds as insufficient topsoil is stockpiled. Every effort must be made to scrape all available topsoil (including plant material) into berms that can be thinly spread across the entire site following mining. To reduce loss of this precious topsoil hessian or shade net should be used to cover and protect it from the strong prevailing winds during mining.

A search and rescue operation should be undertaken by an experienced botanist/horticulturalist. All geophytes should be marked in the winter and carefully removed during summer. Once removed bulbs can either be transplanted directly to surrounding natural areas or be stored in a dry, pathogen free storage facility, for replanting after mining and topsoil spreading.

In addition to the seed stored in the topsoil certain fynbos species are serotinous (meaning that they store their seeds in fruiting bodies/cones in the canopy). Local serotinous seed from surrounding natural vegetation (eg. *Leucadendron xanthoconus, Leucadendron salignum, Aulax umbellata*, and *Protea longifolia*) should be collected and smoke treated (to simulate fire) prior to sowing into the topsoil following spreading on the slopes. Ideally this should be carried out during the wet season (April to July) to increase the likelihood of successful germination and establishment of the seedlings.
A three year post-mining alien vegetation clearing program must be implemented. This should be undertaken by a qualified and experienced alien clearing team according to the Working for Water protocols and should include the clearing of a 50m wide band around the mining area and annual follow up for at least three years post-mining

4.3.3. Hydrocarbon Management and Domestic and Industrial Waste Management Protocol

Note that many of these aspects are already in place at the mine.

(i) Industrial and Domestic Waste handling

All domestic waste is/will be collected in bins located strategically around the site (i.e. at the office, the crushing plant and at the workshops). The domestic waste is to be collected on a daily basis and placed in the designated temporary storage area to be constructed as shown

in Figure 21. Such domestic waste will be periodically collected and disposed of at a suitable municipal waste disposal site.

The proposed waste temporary storage facility (or similar) as depicted in Figure 21 includes a facility for used oil and fuel waste handling. This facility will have a concreted floor and be constructed with a low ridge at the leading edge, guiding run-off water into an oil trap. All used oil, leaked oil/fuel saturated soil, oil contaminated spares, oily rags etc. will be placed in facilities as provided and marked. From there the oil / waste will either be:

- Collected by oil recycling company (such as Oilkol or the Rose Foundation) or,
- Transported by the applicant to a suitable regional licensed hazardous waste handling facility dependant on the nature of the material.

The facility will be roofed (high enough for human access, as opposed to what is illustrated in Figure 21) to ensure proper functioning of the oil trap without flooding by rain.

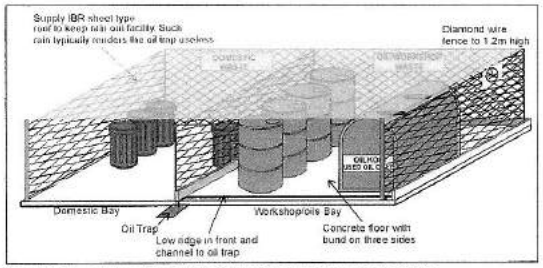


Figure 21: Design Guidelines for industrial and domestic waste temporary storage facility

Note that when disposing of hazardous waste the waste site operator must provide the mine manager with manifests to prove legal disposal.

(ii) Fuel receipt, storage and dispensing:

In the management of fuel supply, receipt, storage and use, the following procedures will be followed, cautions taken and facilities built to properly manage this operational sector:

- The fuel delivery bowser driver will be cautioned to adhere to safe driving speeds and drive cautiously at the mine and along the access road.
- The fuel tank at the mine is developed (refer Photo 18) according to the following design guidelines as illustrated in Figure 22:
  - Construction of a bund wall capable of holding 1.1 x the full capacity of the tanks within it as per the diagram below.
  - Construction of a concreted floor.

  However, as illustrated in Photo 18, the construction of a concreted service apron sufficiently large to catch minor fuel spills during receipt and supply of fuel needs to be put in place. Such concrete apron needs to be dished to lead rain-water or wash-water

to drain pit (sump) for collection of oily-run-off and suitable decontamination / disposal thereof as shown hereafter.

- During dispensing of fuel to field vehicles via fuel trailer, the dispensing vehicle is to be fitted with suitable pumps and funnel extensions (as well as drip trays) to reduce the risk of spillage in the transfer of fuels.

Note that in terms of Reg 4(d) of the "***REGULATIONS ON USE OF WATER FOR MINING AND RELATED ACTIVITIES AIMED AT THE PROTECTION OF WATER RESOURCES***", ... "*no sanitary convenience, fuel depots, reservoir or depots for any substance which causes or is likely to cause pollution of a water resource may be located within the 1:50 year flood-line of any watercourse or estuary*". In this case the stream channels are small and the 1:50 year flood line would be located very close to the bank of the stream. In order to avoid any possible contravention of the regulations, no fuel tank may be located within the 1:100yr floodline (and none is at present located within such 1:100yr floodline).

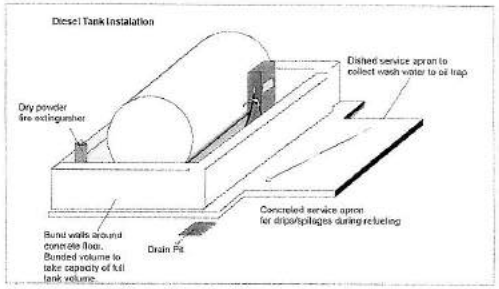


Figure 22: Design Guidelines: Bunded Fuel Tank

(iii) On-site repairs:

Routine servicing of vehicles as well as major overhauls can be conducted at the workshops which are located on site. The workshop is constructed with a reinforced sloped concrete apron. Shallow dished drain leading polluted water to oil trap must be fitted.

(iv) Emergency repairs on site:

In the event of a breakdown with repair being required in the field, the staff should be trained in use of drip trays and suitable funnels (not to drain oil into the soil) for filling and draining of lubricants and the staff will be provided with such equipment to prevent oil contamination.

In addition:

- Used/replaced filters, hoses, belts, cloths, etc. are to be placed in a bin for return to the used oil and lubricant storage area which is to be constructed as shown above. Used filters

are not to be buried at the site of repair (nor discarded in the excavation to be backfilled). No filters are to be burned

- In the event of soil contamination, the soils are to be treated with a suitable decontaminant such as the OT8 or Spillsorb range of products. Such product to be available on site at all times.

All staff involved in mobile plant operation and maintenance are to be made aware of these oil and lubricant procedures. Staff will require instruction in the:

- Deleterious effects of oil / fuel on the environment
- Neutralization of oil leaks on the concrete apron
- The operation of the oil trap (including the temporary storage of recovered oil); and
- Use of OT8 / Spillsorb products.

(v) Vehicle wash Bay

A vehicle wash bay, if established on site, will be built according to the design principles as illustrated in Figure 23:

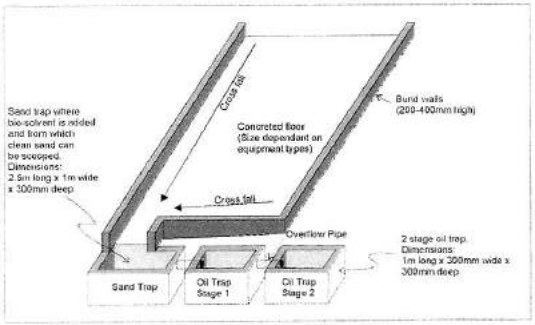


Figure 23: Design Guidelines: Vehicle Washbay

(vi) General Provisions

- All operators are to check their equipment for leaks and report such leaks on a daily basis.
- No used oils are to be used as dust suppressants on maneuvering areas.
- All staff to be instructed to report oil spills within the shortest possible time and be trained in firefighting and the use of biodegradable solvents such as OT8 or Spillsorb or similar products in the clean-up operation.
- All receptacles must be inaccessible to animals.

4.3.4. Stormwater Management Plan

The following description presents the design guidelines for the stormwater management system implemented on site. The stormwater management system put into place serves to prevent silt laden water entering the natural surface water system. While the mist sprays on the plant and dust suppression sprinklers on the roadways and stockpiles do not generate free-flow from these areas, it is the periodic rainfall and associated stormwater run-off which occurs in the dust-laden areas which poses the risk of silt-load into the natural drainage system.

Storm water will result in silt laden runoff from the excavation, logistical facility, plant and stockpiling areas. The stormwater system consequently comprises the following components:

(i) Stormwater is prevented from entering any denuded areas by way of **stormwater cut-off trench above each affected site** (refer Photo 32).

(ii) Any stormwater which does flow from denuded areas is potentially silt laden and will be prevented from entering the natural water system. Such prevention is through the provision **of silt cut-off drains and/or mitre drains (berms) below the affected area** to lead water away. Silt cut-off drains/ trenches or berms are required at the plant area, the old loading platform and along the haul and access roads (refer Photos 32 and 34).

It is imperative that silt laden water is fed into silt retention ponds (refer Photos 33 and 35) which facilitate silt settlement before (clear) water is allowed to enter the natural surface water system. The silt retention pond also serves to facilitate seepage into the rock/soil as recharge and to reduce run-off and allow the re-use of the clear water or its return to the stream. Access for front-end loader is provided to remove collected silt from the silt traps, with such collected silt mixed into the sub-base product.

Mitre drains will be provided along the access road and long term internal roads

The stormwater management system will be periodically checked (especially after rains) and all silt retention ponds will be cleared of silt when silt reaches 30% of pond wall level and the silt mixed into the sub-base product. Monitoring of runoff by sampling during high run-off spates and testing to ensure that TSS (Total Suspended Solids) does not exceed the DWAF standard of 25mg/ℓ above ambient is imperative.

Stormwater Management Plan as depicted in Figure 17 and outlined in Annexure R to guide implementation and maintenance

4.3.5. Demarcation of "No-Go" Areas and "No-Go" Area Management

All areas outside of current activity areas are to be treated as "no-go" areas. No demarcation is required as these areas are quite obviously the undisturbed areas.

Do not use danger tape as a method of demarcation.

The no go areas must form part of the Environmental Induction Training (which forms part of the Environmental Awareness Programme).

4.3.6. Dust Reduction Measures

Although it is unlikely that dust would ever impact on any surrounding land use or user, dust can be continually monitored and analysed through the use of a DustWatch system at any location which is the source of a complaint in this regard. Such system consists of a series of directional dust monitoring units. The four-bucket units are used to monitor prevailing wind directions with opposing winds as controls. This allows for an assessment of import / export fall-out dust quantification (in other words, the dust generated by the quarry can be quantified as well dust generated by other sources in the area) and standard services include the regular sample collection, filtration and data analysis as well as data reporting of the findings (Monthly Fallout & Trends Analysis).

The following is a list of measures that can be implemented at the quarry to prevent any impact of dust on surrounding land uses or users. Many of these are already in place.

Activity	*Attenuation Measure(Internal)*
Traffic along portions of access roads	• Water cart wetting of the road must occur (particularly during dry and / or windy conditions)
Use of unsurfaced roadways	• Water cart wetting of roads during dry and / or windy conditions • Consider installation of permanent sprinkler system on long term routes such as haul roads
Topsoil removal	• Avoid high wind conditions • Schedule in the wet season where possible
Drilling	• Supply masks where applicable. • Fit dust extraction equipment to drill rigs
Blasting (Excavation Advance)	• Avoid blasting under extreme winds. • Apply best available blasting practice
Hauling	• Wet haul road with water cart but preferably permanent sprinkler system
Primary Tipping and Crushing	• Semi-enclosure of hopper. • Install mist spray system at primary intake hopper. • Install dust extraction plant to bag filters on all crushers as a last option • Supply masks where applicable for employee health protection
Screening	• Supply masks where applicable for employee health protection • Screens and crushers to be housed. • Mist sprays at transfer points and on stockpile product walls. • Dust extraction equipment to be fitted to plant as last option
Transfer points	• Apply mist sprays at all belt transfers and screens. • Enclose transfer points.
Stockpiling	• Provide sprinkler systems where wetting of product can take place
Loading and dispatch	• Sprinkler wet stockpile to maintain moisture content • Cover delivery trucks carrying dust generating loads

4.3.7. Blasting Considerations (Vibration, Air-blast and Flyrock)

Vibration and Air Blast are measureable impacts. Although there is unlikely to be any impact in respect of any of these aspects, they have been raised in the EIA/ EMP public participation exercise by Stanford Conservation Trust (SCT) as a possible source of concern especially in light of the historic nature of many of the buildings in Stanford.

Whilst it is highly unlikely that any blast vibration or air blast will be experienced at the distances applicable here, blasting impact mitigation measures, as detailed below, will be put in place (refer Section 34.7). Accordingly, the applicant commits to the following at the request of SCT or any landowner:

- Photographing any buildings / cracks which the SCT believe may be impacted by blast vibration (as record of existing situation)
- Conducting blast vibration measurements at any of these locations

Note that the following material is largely sourced from "Environmental Impact Assessment: Ground Vibration and Air Blast Study, Pentlands Aggregate Quarry" prepared by Blast Management and Consulting (2014).

(i) Recommended ground vibration and air blast levels

The following ground vibration and air blast levels are recommended for blasting operations in this area. Table below provided limits for ground vibration and air blast.

Structure Description	Ground Vibration Limit (mm/s)	Air Blast Limit (dBL)
National Roads/Tar Roads	150	NA
Electrical Lines	75	NA
Railway	150	NA
Transformers	25	NA
Water Wells	50	NA
Telecoms Tower	50	NA
General Houses of proper construction	USBM Criteria or 25 mm/s	Shall not exceed 134dB at point of concern but 120 dB preferred
Houses of lesser proper construction	12.5	
Rural building- Mud houses	~6	

(ii) Blast noise:

In case of blast noise, the following attenuation measures will be put in place should such impact arise / result in complaints. Note that such impact would in any event be nuisance impact and will not materially impact any surrounding land user:

- Generate a database of surrounding land users with contact details and inform them at least one week prior to when blast is expected to take place
- Always blast at same time of day

A further consideration of blasting times is when weather conditions could influence the effects yielded by blasting operations. Recommended is not to blast too early in the morning when it is still cool or the possibility of inversion is present or too late in the afternoon in winter as well. Do not blast in fog. Do not blast in the dark. Prevail from blasting when wind is blowing strongly in the direction of an outside receptor. Do not blast with low overcast clouds. These 'do not's stem from the influence that weather has on air blast. The energy of air blast cannot be increased but it is distributed differently to expected result. It is recommended that a standard blasting time is fixed and blasting notice boards could be setup at various routes around the project area that will inform the community of blasting dates and times if it becomes an issue.

(iii) Blast Vibration:

The following information is quoted directly from a report on vibration measurement and control (Mohamed, 2010).

The ground vibration can be affected by certain blast design parameters:

- The maximum instantaneous charge or MIC is the amount of explosives fired at the same moment in time.
- The number and frequency of delays. The introduction of a delay sequence can reduce the size of the maximum wave produced.
- The height of the working bench and therefore the length of borehole.
- The number of "decks" or layers of explosives and detonators in each hole.
- The spacing, burden and number of holes, in the blast ratio.
- The diameter of the shot hole, which will affect the amount of explosives used.

There are several steps an operator can take to reduce ground vibrations:

- Blast design
- Hole straightness
- Restrict the amount of Sub drilling
- Reduce charge per delay
- Choice of explosives
- Using the NONEL blasting system

Air overpressure

There are five principal sources of air overpressure from blasting at surface mineral workings:

- The use of detonating cord which can produce high frequency and hence audible energy within the air overpressure spectrum.
- Stemming release, seen as a spout of material from the boreholes, gives rise to high frequency air overpressure.
- Gas venting through an excess of explosives leading to the escape of high-velocity gases, gives rise to high frequency air overpressure.
- Reflection of stress waves at a free face without breakage or movement of the rock mass. In this case the vertical component of the ground-vibration wave gives rise to a high-frequency source.
- Physical movement of the rock mass, both around the boreholes and at any other free faces, which gives rise to both low and high-frequency air overpressure.

The steps to reduce air vibrations:

Detonating cord should be used as sparingly as possible, and any exposed lengths covered with as much material as possible. Just a few feet of exposed cord can lead to significant amounts of audible energy and, hence, high air overpressure levels.

Stemming release can be controlled by detonation technique, together with an adequate amount of good stemming material. Drill fines, while readily available, do not make good stemming material. The use of angular chippings is better. It should be noted however that detonation cord and stemming release have been virtually eliminated with the use of in-hole initiation techniques.

Gas venting results from overcharging with respect to burden and spacing or, perhaps, a local weakness within the rock, and is also typified by the occurrence of fly rock. Its control is essential for economic and safe blasting, and is considerably aided by accurate drilling and placement of charges, together with regular face surveys.

The controllable parameters such as geology, topography, and meteorological conditions can be controlled to some extent by adjustment of blast pattern and blaster in charge judgment for blasting operation."

(iv) Flyrock

Flyrock has the potential to result in significant impact including fatal accidents. Modern blasting practice however allows for blast design planning to accurately determine the charge per hole and delays required for a specific exclusion zone. This blast design description does not fall within the ambit of this documentation but is conducted by the blasting professional. Note that in the case where facilities / communities are located within 500m, then such blast design is presented to the DMR for their approval.

The following factors are generally regarded as the cause of (excessive) flyrock:

- Holes loaded with excessive explosives
- Inadequate burden
- Incomplete or poorly conducted hazard assessment prior to blasting
- incomplete checking of hole placement and geological changes of the rock mass
- No clear supervision for the whole blasting activity

Therefore, to reduce the chance of uncontrolled flyrock, the following should be undertaken (ZHOU Zilong, 2011):

- Ensure that all blast holes are loaded with the proper amount of explosives
- Ensure effective blast design.
- Perform a complete hazard assessment prior to blasting.
- Check all hole placements and look into geological changes of the rock mass.
- Ensure that profile methods are applied where there is a potential for drill wander due to cracked ground.
- Establish clear lines of responsibility, supervision and communication for the whole blasting activity. The blaster should communicate with the driller to determine the condition of the boreholes before loading them with explosives.
- Establish, review and enforce written "safe-work" procedures for all blasting operations
- Ensure that all persons associated with the blasting activity are properly trained.
- Give careful consideration to the blast orientation (i.e. quarry face) to ensure the blast occurs in a safe direction.
- Where unexpected events occur, determine the causes and take appropriate action.
- As well, to guard against unexpected flyrock, blasters should:
  - Predetermine the danger area and clear everyone from the danger area.
  - Protect themselves and others from the threat of possible flyrock with adequate blasting shelters.

Third party monitoring

Third party consultation and monitoring should be considered for all ground vibration and air blast monitoring work (i.e. if any complaints are received in the future). This will bring about unbiased evaluation of levels and influence from an independent group. Monitoring could be done using permanent installed stations.

4.3.8. Surface Water

Surface Water Impact Mitigation Measures to be applied:

- Construction of a bund around the diesel tank and a concrete apron for vehicle filling to avoid spills penetrating the soil in close proximity to the stream (in place).
- General housekeeping in their present condition of the office, workshop, personnel amenities etc.
- Tidying up of the fill platform edge, together with the sloping and rehabilitation of the western slope of the stream valley.
- Construction of a tailings pond on the plant platform to which tailings from the sand washing plant will discharge and closure of the existing drainage line to the upper dam in the stream channel. Tailings from the tailings pond must be removed by front end loader and used as sand cover in the rehabilitation of old gravel pits on the south slope of the hill facing the tar road.
- Rehabilitation of the stream channel includes: the re-establishment of indigenous shrub and trees on the west bank by tree/shrub planting by a horticulturalist; tidy the lower portion of the stream channel above the bridge and revegetate; reconstruct the bridge; and infill shaping/reshaping and final stabilisation of the east bank above the bridge using coarse rock pack.
- With regards to hard rock excavation, the following must be undertaken; restrict all loading operations to the extent of the existing platform below the excavation with no expansion of the platform towards the stream; removal of any fly-rock from the stream; taking precautionary measures not to damage the exposed water pipe by fly-rock; and finally, the topsoiled areas to be seeded with Fynbos seed to local seed supplier specification.

Further mitigation to alleviate impacts to freshwater ecosystems are proposed as follows:

- Removal of a section of the loading platform and rehabilitation of this area through re-shaping and planting with indigenous vegetation to create a natural buffer of at least 30 m between the excavation area and the river channel. Note that this prescription of the Freshwater Ecologist and the Breede-Gouritz Catchment Management Agency (refer Section 2.12) may not be possible to a full distance of 30m, however it is imperative that the holder clear the stream channel to a maximum feasible buffer. Even 5m from the stream channel in this steep environment would alleviate many of the impacts associated with the up to now indiscriminate dumping of material over the leading edge. It is required that a rehabilitation specialist accompany the mine manager on a visit and that this task be initiated in the short-term.
- Re-shaping of the channel margin and removal of large rock material that prevents the growth of natural riparian vegetation typical of the channel under natural conditions.
- Rehabilitation of the channel margin through the introduction of topsoil and revegetation of the channel banks and riparian fringe.
- Removal of alien vegetation and revegetation of the channel margins where infestation limits the riparian functionality along the length of mine operations.

- Stabilisation of the channel where active erosion is evident using soft engineering options such as geofabric meshes rather than gabions or armourflexing if possible.
- Management of runoff from the site through development of an effective stormwater management plan to intercept flows from the excavation and loading platform, as well as the stockpiling and crushing platform. Although there are currently detention facilities to intercept silt laden stormwater runoff, this system is not effective and needs to be addressed to ensure that overbank flow, erosion and sedimentation of the channel are minimised.
- Crushed stone should be removed from the river channel by hand.
- Upgrading of the road crossing to accommodate high flows and thus prevent the 'damming' effect that is created by the current road crossing. This would involve the input of an engineer and consideration of culverts instead of pipes across the river. The road crossing also requires erosion prevention measures to prevent sedimentation of the channel. Re-instating the natural flow dynamics of the system will also assist with flushing fine sediments accumulated in the instream habitat and thus improve the currently impacted state of this ecosystem

4.3.9. Rehabilitation

(i) Rehabilitation of Past Disturbances

Impacts emanating from the Stanford Quarry in the respective 2002, 2012 and 2017 EIAs/EMPs, the Consent Use approval (2018), specialist studies conducted (i.e. Freshwater Ecosystems Impact Assessment, Stormwater Management Report), issues highlighted by municipal and government departments, NGOs and members of the public focus on the following causes (refer Sections 4.1 and 4.2):

- Stream impact; including stream channel alteration, stream ecological functioning failure due to high silt loading and rock deposition (i.e. fly-rock), uncontrolled flow from quarry working area (e.g. loading platform, roads, working area), overtopping of stream during flash flooding incidents, poor stream interface due to lack of buffers, and alien vegetation infestation within the stream bed and riparian environs.
- Lack of stormwater management characterized by uncontrolled surface runoff from quarry working areas, inadequate capacity of piped culvert to cater for high stream volumes, no silt removal from run-off, etc.
- Visual impact and poor visual performance due to exposed ridges, contrasting (colour) topsoil berms and alien vegetation infestation.
- Poor fly-rock management insofar as initial distance of blasting from the stream and limited, if any, removal of fly-rock from riparian areas.

Prior to outlining the rehabilitation programmes underway to address abovementioned impact, the following clarification:

(i) **Mine Face Rehabilitation**

One of the continuing themes of the comments received during the EIA/EMP public participation process was the lack of rehabilitation in terms of the existing Mining Right, with a general misunderstanding amongst respondents that rehabilitation of the existing quarry was planned to take place before the end of mining. However, the approved 2002 EMP clearly explains that rehabilitation of final faces can only take place as part of decommissioning rehabilitation. Accordingly, the ***mining programme*** at the time did not allow for simultaneous rehabilitation of faces whilst mining was taking place as all faces are advanced toward the final limit together. The result is that all faces only reach their final configuration very late in the mining of the site. As a result, no rehabilitation of

faces has yet taken place, with such face rehabilitation only programmed to take place as part of decommissioning rehabilitation. However the mine plan / phasing in the ***extension mining programme*** does allow for rehabilitation of the upper faces, with such faces, together with certain mine faces of the initial mining phase being rehabilitated during the extension mining operation (refer Section 3.2.2 (iii), with all benches and faces above level 195 fully rehabilitated at end of Phase 2a (refer Figure 15).

(ii) Accordingly, there is also a misconception regarding **rehabilitation of past disturbances, operational rehabilitation** and **mine closure/ decommissioning rehabilitation**, noting the following:

- **Past disturbance rehabilitation** includes the addressing of impacts from earlier mining (e.g. pebble in stream-bed mining pre-2002, quarry establishment (2012) impact on stream (fly-rock, runoff from loading area, etc.)
- **Current operational rehabilitation** includes addressing dust management, surface water runoff management, visual impact, etc.
- **Mine decommissioning rehabilitation** includes rehabilitation to effect mine closure, including rehabilitation of the excavation (i.e. faces, benches, removal of top-soil berms), removal of all infrastructure and rehabilitation to wilderness area, etc.

Accordingly in terms of both the conditions of approval of the Consent Use (2018) and the Annual Rehabilitation Plan (2018/2019) as prepared and submitted in terms of the Financial Provision Regulations of the National Environmental Management Act, 1998 (as amended) to the DMR, the following demonstrates rehabilitation programmes being undertaken at the quarry to address **past disturbance rehabilitation** and **current operational rehabilitation**.

(i) Rehabilitation of the streamed and valley floor shaping

Photos 21 and 22 reflect on the earlier 2002-2012 rehabilitation of the stream channel and its banks downstream of the culvert after the earlier alluvial pebble and boulder mining by others in the stream and valley floor had ceased. Earlier excavations and ponds were filled and smoothed to create the current level and slightly raised east-bank and a defined stream channel, with placed coarse rock on the channel edges to defend the bank against meandering erosion.

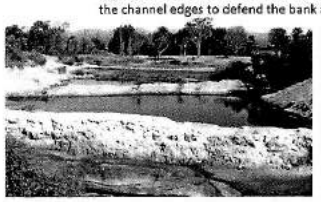


Photo 21: The valley floor pre-rehabilitation

Photo 22: Rebuilding the western bank before cutting a new stream channel

Current 2018 valley floor and stream channel rehabilitation is therefore now linked only to alien vegetation clearing and maintaining the interspersed coarse rock armouring of the lower stream channel bank where required to avoid erosion of the banks.

Photo 23 below shows the earlier re-created east bank with interspersed rock revealed by the current alien bush clearing while Photo 24 shows the channelled river course subsequent to recent clearing.

Photo 23: The earlier re-created east bank with rock armouring revealed by 2018 alien vegetation clearing

Photo 24: The earlier rechannelled stream course seen from Culvert

(ii) Rehabilitation of the loading platform through terminating the loading and stockpiling activities, with the only use being accommodating the existing haul road, and providing a side-drain/ berm to redirect surface water runoff from the haul road and the stream interface area, draining to a silt trap pond adjacent to the stream crossing/ culvert (refer Photo 33)

(iii) Alien Vegetation Clearing

The alien vegetation clearing programme commenced in June 2018 in the valley floor and stream channel downstream of the culvert, with a task team of 6 persons using hand saws, chain saws and tree poppers, establishing the following daily clearing rates on the respective terrains as reflected below as the basis for implementing a permanent programme at all alien infested Afrimat sites after the winter rains

On the steep western slope	387m²/ day	in dense mature alien tree and bush growth
On the eastern level bank	1,400m²/ day	in dense mature trees and bush

Onset of the 2018 summer dry-season will allow improved continuity of Afrimat's alien clearing programme, which employs locally recruited job seekers, with the programme to continue first at Stanford Quarry.

The following Photo Page (i.e. Photos 25-30) shows the June 2018 Alien Vegetation Control Programme initiation in the stream-bed, its west-bank slope and east-bank area

Photopage of Stanford Quarry June 2018 alien vegetation control programe initiated in the stream channel and valley floor downstream of the culvert SPC#2258/ 23 Aug 2018

West-Bank Slope

Photo 25: Before

Photo 26: During

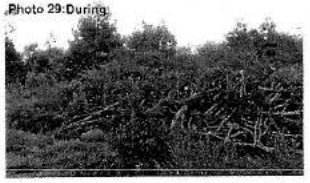
Photo 27: After

Level East-Bank Area Reshaped in 2002

Photo 28: Before

Photo 30: After

Photo 29: During



(iv) Blast-rock clearing from the stream upstream of the culvert

Photo 31 below shows the June 2018 team lined-up passing collected flyrock out of the stream channel upstream of the culvert

Photo 31: Periodic clearing of the upstream channel of fly-rock

(v) Stormwater system maintenance

The on-site stormwater system requires regular maintenance of the following components thereof:

- Side drain (Photo 32) down the excavation haul road which leads to a silt trap pond (Photo 33) adjacent to the culvert before discharging into the stream below the culvert
- Side drain (Photo 34) along the eastern edge of the delivery/stockpile loading road with its berm preventing silt run-off over the west-bank slope into the stream. The drain discharges to two silt traps (Photo 35) on the slope between the diesel tank area and the stream
- The recently upgraded capacity of the stream road crossing pipe culvert to meet 1:50 year flood requirements

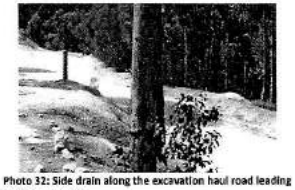


Photo 32: Side drain along the excavation haul road leading to silt trap pond

Photo 33: Silt trap pond adjacent to culvert

Photo 34: Side drain along the western edge of the stockpile loading area road

Photo 35: Two-stage silt trap ponds on slope near the diesel tank

(vi) Rehabilitation of unmined ridge-lines

Having restricted the mine during its development to north of the southern ridge line and south of the northern ridge-line by demarcation with 2m long white poles placed along these lines, no mining has occurred across the ridge-lines and in fact the southern ridgeline was moved several meters north to reduce the risk of the excavation breaking the southern ridge-line. Accordingly, with the ridgeline unbroken by the excavation, the visual impact which has occurred along the southern ridge-line derived from the white soil (topsoil) berm placed for interim visual screening of activities and serving as a stockpile for soil to be used in post-mining rehabilitation of the quarry benches. As such, these berms must remain until they are used as soil cover of the final internal quarry benches during closure rehabilitation. Given awareness of its initial visual impact (stark white against the green fynbos surroundings as demonstrated in photos 36 and 37), the berm was then planted with Carpobratus (sour fig) runners to green (darken) the exposed slope of the berm. The growth of this vegetation and its success in visually blending the berm is illustrated in the Photo 38.

Photo 36: Southern berm after development

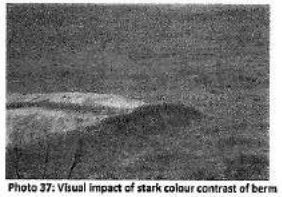


Photo 37: Visual impact of stark colour contrast of berm

Photo 38: Southern berm after Carpobratus spreading

5. DESIRABILITY

This section puts forward the desirability of the proposed Amendment of Conditions in respect of the existing Consent Use Approval for hard-rock mining on Erf 1068 to permit an extension of hard rock mining on Erf 1068, Stanford. Such desirability is informed by the consistency of the proposed land use and the amendment of the existing consent use approval conditions put forward in this application with Overstrand's spatial policies, including the Overstrand By-Law on Municipal Land Use Planning (2015) and criteria for deciding on applications (i.e. Section 68 of the By-Law).

5.1. Consistency with Overstrand Municipality Policy

(i) Consistency with the Overstrand Municipality Spatial Development Framework (SDF, 2006), the Overstrand Integrated Development Framework (2014) (IDF, 2014) and the Draft Overstrand Environmental Management Framework (2013)(EMF, 2013).

The Mining Policy as put forward in the Overstrand SDF (2006) recognises that given the existence of "sand mines" often being situated in visually prominent or environmentally sensitive areas, a need exists to find a balance between economic and environmental considerations given the importance of mineral exploitation to the construction industry, as well as other industrial applications. The policy further emphasises the following guidelines for the location of mines:

- Avoid mining activities in/ near and implement mitigation measures if permitted for;
  - environmentally sensitive areas i.e. irreplaceable and vulnerable areas according to the bioregional planning model, especially in Conservation I and Conservation II areas;
  - visually prominent locations;
  - areas with prime and unique agricultural land;
  - ecologically vulnerable areas;
  - areas in view of identified scenic routes; and
  - sensitive hydrological systems.

  Such policy is reflected as follows in the SDF (2006) and subsequent policies.
- The Overstrand SDF (2006) and Overstrand IDF(2014) in their respective policies and objectives (i.e. SDF Policy P15.1 and IDF EO2 Objective "protect biodiversity and agricultural resources") put forward the following consideration for mining: *"The desirability of designating mining areas should take into account the worth of the material to be extracted against the long-term costs to the visual quality of the area, the potential loss in agricultural production, as well as the impacts on existing rights of neighbouring property owners"*.
- The Overstrand IDF (2014) (E02 Objective) emphasises the following: *"Prevent unsustainable change in land use of biodiversity "rich" rural areas, existing agricultural activity and soil with agricultural potential to other uses"*.
- Spatial Planning Categories (SPCs) as put forward in the Overstrand SDF (2006) and Critical Biodiversity Areas (CBAs) as put forward in the Overstrand IDF (2014) place the following restrictions on mining as illustrated in Figure 8, noting the following:

- Overstrand SDF (2006); major portion of Mining Area is located in "*Conservation-Agriculture Buffer*" which has as its purpose maintaining ecological and evolutionary process, safe-guarding valuable ecosystem services, protecting landscapes of visual value, providing a buffer between the "conservation" and "agriculture core areas" and accommodating ecological corridors. Accordingly the SDF puts forward requirements for where mining rights exist and mining would result in the transformation of threatened ecosystems, including; off-sets being provided, transformed areas being subject to stringent rehabilitation measures, monitoring and auditing, all informed by specialist botanical input and input of the Municipality in compilation of the EMPR, with the objective of the rehabilitation being restoring the natural veld within the transformed areas.
- Draft Overstrand IDF (2014); The draft IDF, a component of the Overstrand IDP: Towards 2050 in putting forward the land use categories that should not be supported, lists mining and mineral extraction as follows within the following land classification:

Core 1	Core 2	Buffer/ Other Natural	No Natural Remaining
• Mining and mineral extraction	• Mining and mineral extraction	• Loss of >1ha through transformation of any natural or near natural habits comprising critically endangered or endangered vegetation types or within ecological corridors. • Mining and mineral extraction	• Loss of >5ha through transformation of natural or near natural habitats in rural areas, subject to mitigatory measures informed by specialist assessments (e.g. groundwater)

Consistency of mining on Erf 1068 Stanford with Overstrand policy is limited by the following:

- The commencement of mining activities (1996) and compilation of the EMP (2002) inclusive of the Mine Plan, pre-dating current relevant policies (2006-2014), together with the fact that the current mining has reached +-98% of its development footprint restricts the retrospective application of such policies to this application.
- The policies, while putting forward a Mining Policy and spatially depicted land use categories not suitable for mining, do not reserve areas for exploitation of construction materials, with such areas only being confirmed through prospecting and site selection.
- Minerals being place/ resource-bound, a critical location consideration for strategic minerals (e.g. construction materials), together with distance from the consumer market (i.e. delivery cost and transport impact on regional/ district road infrastructure and user safety) also being a strong location consideration.

However consistency is being and can still be achieved with Overstrand policy in respect of mining on Erf 1068 Stanford and the proposed extension thereof on Erf 1068 through the following:

- The current mining operations as per the EMP include mitigation measures to address impacts on biodiversity, water resources, visual impact, noise, etc., through management of identified buffers, "no-go" areas, restricted excavation area, top-soil management, re-vegetation requirements, hydrocarbon management, blasting, dust and noise management, surface water management, etc. (refer section 4.3).
- The limited operational period of mining does not preclude the re-instatement of pre-mining land capability given the Decommissioning Rehabilitation and Closure Plan (refer Figure 18) and the Future Land Use and Residual Infrastructure Plan (refer Figure 19) as per the EMP, with land to be restored to wilderness use land capability (albeit with a partially altered habitat type due to topographical manipulation). The completed rehabilitation of the depleted scree mining area demonstrates such restoration.
- The EMP being inclusive of stringent rehabilitation measures, monitoring and auditing, including provision for an Environmental Monitoring Committee (DMR, Municipality, land owner participation) to ensure appropriate topographical and land use/ capability reinstatement post-mining.
- The Stanford Quarry to prepare and submit an Annual Rehabilitation Plan to the DMR in terms of the Financial Provision Regulations of the National Environmental Management Act, 1998 (as amended)
- The Stanford Quarry achieving a balance between the benefits of mining a strategic resource and the long-term environmental costs thereof given the mitigatory and rehabilitation measures in place.

(ii) Consistency with the Overstrand Municipality Zoning Scheme (2013).

Erf 1068, together with the surrounding properties is zoned Agricultural Zone 1: Agriculture (AGRI) in terms of the Overstrand Municipality Zoning Scheme. The proposed land use (i.e. mining) is consistent with the Agricultural Zone 1 (AGRI) as it is a consent use to such primary use. Mining, apart from being place/ resource bound, is generally considered favourably as a consent use within the agricultural zone given no dedicated "mining zone" and given agriculture's un-built surface, space extensiveness and remoteness from urban or highly populated areas. Furthermore, mining is often restricted by other resource limitations (e.g. topography and sensitive environment) and a land use-period ("life-of-mine") informed by both its acceptable level of impact and the mineral reserve.

Accordingly, approval of the amendment of conditions in respect of the existing consent use approval to permit mining for a defined period (i.e. "life-of-mine") on Erf 1068 in terms of Section 16(2)(h) of the Overstrand By-Law on Municipal Land Use Planning (2015) will be consistent with the Overstrand Municipality Zoning Scheme Regulations.

5.2. Consideration Criteria

There is compelling evidence as to the proposed mining meeting/addressing the necessary criteria in consideration of amendment of conditions application in respect of the existing consent use approval, as presented below and detailed in previous sections of this report:

(i) Economic Impact

The quarry, since its commencement to present, has had a positive economic impact given the following:

- Continued employment of 2 permanent staff and a team of 10 staff who conduct the necessary blasting, crushing, loading and stockpiling on a rotational basis between three of the operator's quarries.
- Continued delivery of concrete aggregate to the wider Hermanus construction industry (a significant district sector) at a competitive price given the proximity of Stanford Quarry to customers. The closure of the Caledon Quarry further increases the dependence of the local construction industry on the Stanford Quarry for construction aggregate.
- Support of local communities through the DMR's required Social and Labour Plan through which the quarry operators contribute financially to municipal IDP identified community projects.

(ii) Socio-Economic Impact

- Securing Employment

  While the mining operation will only result in the continued employment of existing employees (i.e. excavator operator(s), truck drivers, etc.), the purpose of the mine is to provide a continued locally sourced "strategic resource" in support of the Overstrand construction industry

- Contributing to and Facilitating Socio-economic and Development Opportunities

  The Stanford Quarry **Social and Labour Plan (SLP)** for the period 2017-2021 puts forward the Socio-Economic and Development Opportunities available from Afrimat Aggregates Operations (Pty) Ltd to its staff and labour-sending communities as required by the Mineral and Petroleum Resources Development Act (MPRDA, 2000). Through its registration with the relevant SETA, the Mining Qualification Authority, its in-house appointed Skills Development Facilitator and submission of its workplace Skills Development Plan the following is offered to its employees:

  - Adult Basic Education (ABET)
  - Core Business Training
  - A Leadership Programme, including the training of a HDSA learner from the local community
  - Portable Skills Training, including computer skills
  - Bursary Plan for HDSA candidate training targeting HDSA high schools in the Hermanus area
  - Internship Programme targeting HDSA interns from the local community
  - Career Progression to ensure leadership continuity in key positions through the Afrimat Graduate Development Programme and the Afrimat Management Development Programme
  - Mentorship Plan to train mentors and to match mentors and protégés
  - Local and Economic Development Programme which includes an Afrimat-Overstrand Municipality partnership in addressing the current total employment rate of 23,3% in the municipal area. This initiative, driven by Municipality as part of their job creation initiative, has as its objective creating sustainable businesses for the youth, assisting in their day-to-day running of a business, marketing, logistics, etc. Afrimat (Stanford Quarry) will assist entrepreneurs in their development through the municipal tourism office.

  Additionally, Stanford Quarry contributes to socio-economic development as required by the MPRDA through the following:

- Measures to address nutrition; Nutritional advice and annual staff medical examinations
- Addressing housing and living conditions through promoting home ownership initiatives
- Employment equity to build an effective and representative workforce
- Procurement Progression Plan by the quarry in order to participate in broad-based socio-economic transformation and to integrate the principles of the Mining Charter into the procurement operations of the company, with a focus on local HDSA businesses and opportunities
- Management of Downscaling and Retrenchment, including establishment of a forum, mechanisms to save jobs, alternative solutions for creating job security and mechanisms to ameliorate the social and economic impact on individuals, regions and economies as a result of retrenchment or mine closure.

- Resolution of Social Conflict

  Negative social impact of the proposed mine land use is negligible given the following:
  - No staff will overnight on the mine site, except for security personnel when machinery is retained on-site.
  - No agricultural labour will be displaced from the mining extension area
  - The Environmental Management System (EMS) provides for an independent monitoring committee which could (if there is sufficient interest) meet on site on an annual basis to discuss issues relating to environmental management, with members comprising representatives of the mining company, environmental section of Overstrand Municipality and the landowner representative.

(iii) Capital Investment

While the extension excavation will utilise existing site facilities, it will result in on-going replacement investment in machinery/ plant and maintenance thereof to undertake such operation. Furthermore, the extended mining will generate a land rental income for the land owner (i.e. Metcalf Family Trust) and royalty payments to the State.

(iv) Compatibility with Surrounding Land Uses

As illustrated in Figure 7, the impact on surrounding land uses is limited given the following:

- The limited footprint of the activity and its isolation within the combined 1528.24ha area of Erf 1068, Erf 1069, and Rem Erf 293 all owned by the same landowner, further increasing such isolation of the quarry from adjacent land uses. It is noted that while the Extended Mining Right Area comprises 9,7557ha, the actual disturbance area only comprises 2,55ha (extended excavation), with the existing plant and stockpile area (1,4ha) and logistical area (0,4ha), serving the new extension area.
- The surrounding land uses being mainly extensive (e.g. wilderness and livestock grazing).
- No complaints from land owners practising intensive land uses (e.g. vineyards, orchards) or operating hospitality establishments (e.g. guesthouses).
- Homesteads being at minimum 1500m distance from the quarry.
- Mitigatory measures being in place to reduce any impact on surrounding properties (e.g. hydrocarbon management, dust and noise abatement, blast management, restricting/ reducing visual impact, etc.).

(v) Impact on Existing Services

- The on-going operation of the quarry will not impact on services given that such services have been in place for the past 22 or more years, including:

- Water obtained from the property owner, including for road and plant area wetting and sanitation, with such supply as per DWS General Authorisation (refer Annexure T), Notarial Mineral Lease, and sourced from the Good Luck Dam.
- Electrical power; ESKOM.
- Sewage treatment; municipal collection from on-site holding tank.
- Waste (domestic); removal to municipal disposal facility.
- Waste (industrial e.g. oil spill); removed by specialist contractor.

– Furthermore as detailed in section 2.4, 4.3.4 and Figures 6 and 17, stormwater management is in place to reduce run-off of silt and hydrocarbons, as well as uncontrolled discharges into the stream.

(vi) Impact on Safety, Health and Well-being of Surrounding Communities

The relative isolation and distance from surrounding homesteads (minimum of 1,5km), as well as the quarry operation being restricted to weekdays 07h00-17h30 daily, negates impacts emanating from quarry operations (e.g. dust, noise, fly-rock, etc.), with mitigatory measures in pace should impact occur, including:

– Road and plant area wetting to reduce the impact of dust from truck movement.
– Truck washing on departure to reduce dust/ soil deposition on the R43.
– Vehicle mechanical compliance (e.g. silencers) to restrict noise impact.
– Regulatory provision (e.g. safety/ warning signage at the quarry access road/ R43 intersection) to reduce delivery vehicle traffic speed, improve road safety and improve awareness to public road users of heavy truck movement.
– Hydrocarbon Management Programme in place to avoid and manage any fuel/ oil spills by quarry vehicles and plant, and thereby avoid groundwater pollution.
– Furthermore the on-going quarry operations and presence of personnel on Erf 1068 will continue to contribute to the security of the area.

(vii) Impact on Existing Use Rights

The consent use, if approved, will not impact on existing surrounding land use rights given that such approval in terms of section 69 of the Overstrand By-Law on Municipal Land Use Planning (2015) will be subject to specific conditions ensuring appropriate operation of the quarry as well as its closure and rehabilitation. Furthermore, the quarry has a rehabilitation fund in place (i.e. security lodged with DMR) to ensure reinstatement of the land (quarry) in the event of failure by the lessee (i.e. quarry operator). Additionally, the land owner and quarry operator are mutually protected by a lease agreement in the form of a Notarial Mineral Lease in respect of the right to mine, lease period and ancillary rights and responsibilities.

(viii) Impact on Heritage

Heritage Western Cape (refer Annexure G) states that **"since there is no reason to believe that the proposed development will impact on heritage resources, and accordingly further processes under Section 38 of the NHRA (Act 25 of 1999) do not apply"**.

(ix) Impact on the Biophysical Environment

Mitigatory measures are outlined in Section 4 insofar impact on the biophysical environment (i.e. impact on biodiversity and fauna). The endorsement, subject to reservations/ conditions, of the proposed mining by the following environmental authorities during the EIA/ EMP demonstrates agreement that given such mitigatory measures, together with additional measures as put forward in their reservations/ endorsements, impact on the biophysical environment will be within acceptable limits:

– CapeNature: Scientific Services (refer Annexure L)

– Overstrand Municipality: Environmental Section (refer Annexure K).
– National Department of Public Works (refer Annexure M).
– Breede-Gouritz Catchment Management Agency (refer Annexure T)
– Western Cape Department of Agriculture (refer Annexure J)
– DEA&DP: Directorate Development Management (Region 2) (refer Annexure I)

(x) Traffic Impact and Access Related Considerations

The quarry access over Erven 1068 and Rem 293 is in terms of Notarial Mineral Lease, including conditions of use (e.g. maintenance and dust management). The current average product sales result in 10-11 truck movements from the quarry per work-day (i.e. +-1/hour), notably a negligible traffic increase on the TR43. However, mitigatory measures are in place to reduce the impact of delivery trucks, including:

– Road wetting in the vicinity of the TR43 intersection (refer Photo 1).
– Speed and road safety management (e.g. signage) and driver education/ awareness.
– Vehicle compliance (e.g. silencer noise) and removal of sand/ debris prior to trucks leaving the quarry.
– Meeting R43 intersection upgrade requirements as per Road Network Management's requirements (refer Section 2.4).

(xi) Compliance with Overstrand Town Planning and Environmental Division application requirements

This motivation report addresses all items raised during a discussion held with the Town Planning Department and Environmental Division of Overstrand Municipality on 23 October 2018 (refer Annexure U for summary notes of such discussion).

6. CONCLUSIONS AND RECOMMENDATION

6.1. Conclusions

As per Section 16(2)(h) of the Overstrand Municipality: Municipal Land Use Planning By-Law (2015), and structured in terms of the criteria for deciding on an application (Section 68 of the By-Law), this application is motivated on the following grounds:

(i) Complies with the requirements of the **Overstrand Municipality: Municipal Land Use Planning By-Law (2015)**.

(ii) Comprises a reasonable and permissible deviation from the **Overstrand SDF (2014)**, aligning with the Overstrand policy.

(iii) Constitutes a desirable amendment of Consent Use approval conditions as per Section 16(2)(h) of the Overstrand Municipality: Municipal Land Use Planning By-Law (2015)

(iv) **The Western Cape Provincial Spatial Development Framework**, 2014 (PSDF)

The PSDF recognises the importance of mineral resource assets, especially where they can contribute to, or support economic growth, often requiring trade-offs and coherent land use planning. The PSDF puts forward the safeguarding of strategic minerals through municipal SDFs and applying land use policy to reserve these resources for possible use.

(v) Complies with **Chapter 2 of the Western Cape Land Use Planning Act (2014)** insofar the proposed quarry extension, operation and rehabilitation is guided by and promotes the following **"development principles" put forward in the Act:**

- ***Spatial sustainability***; through site selection in order to limit impact on agriculture, biodiversity and culturally significant land , with such development and reinstatement (rehabilitation) consistent with land use measures in accordance with environmental management instruments (e.g. EIA/ EMP

process, appointment of an Environmental Control Officer, and conducting regular Environmental Performance Assessments (EPAs)). Furthermore, the rehabilitation will restore the mined land to wilderness, thereby ensuring land use sustainability and limiting the impact on adjoining agriculture, resource conservation, and other uses.

- ***Sustained protection of the environment***; through the quarry extension site selection having regard for natural habitats, systems (CBA's, water courses) and view-sheds, and re-establishing wilderness use, together with ensuring protection of water courses through land use buffering and environmental services maintenance.
- ***Realising the economic potential of the area***; through the supply of a strategic material (i.e. construction material) in support of the local construction industry, thereby unlocking the latent benefit and synergy vested in the non-renewable mineral resource to create a positive socio-economic benefit through capital earning, job creation and socio-economic development, including supporting and growing tourism.
- ***Employing the principle of efficiency,*** though optimising the strategic resource (i.e. construction material) by sourcing the mineral deposit in close proximity to its end-use (Hermanus and environs) and thereby reducing the carbon footprint (i.e. delivery/ distance) and reducing impact on roads (i.e. maintenance) and impact on road user safety, compared to if such mineral sourcing was from further afield deposit reserves.

(vi) The location, land development and rehabilitation of the proposed quarry extension on Erf 1068 Stanford promotes the following **SPLUMA "principles" put forward in the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013):**

- The end-use of the mined material contributes to addressing ***past spatial injustice*** in improving socio-economic conditions in Hermanus and environs, as well as being a catalyst to foster rural and urban development and community facility establishment and support.
- While no mineral resource use is sustainable, the unlocking of the latent benefit and synergy vested in the non-renewable mineral resource through employment creation and stability contributes to ***spatial sustainability***.
- The location of the mine relative to the proximity of its product use (Hermanus and environs) ensures ***efficiency*** through reduced transport cost, limiting the carbon footprint and reducing impact (i.e. road maintenance and public road safety).
- The mine's contribution to rural and urban development improves ***spatial resilience*** through ensuring improved sustainable community livelihoods and addressing the impact of economic and environmental shocks (e.g. climate change) on communities.
- The EIA/ EMP and Land Use Authorisation planning and management processes applied to the quarry extension location, its operation and rehabilitation reflects ***good administration***, being inclusive of all spheres of government (National, Provincial and Municipal).

It is therefore concluded, as demonstrated in this application, that through the effective implementation of the mitigation measures provided, the extension, operation and rehabilitation of the Stanford Quarry on Erf 1068 Stanford can deliver a **sustainable and efficient contribution to socio-economic development and transformation** without the **rehabilitation "legacy costs"** and **loss of land** capability (botanical and agricultural) historically and traditionally associated with hardrock quarries.

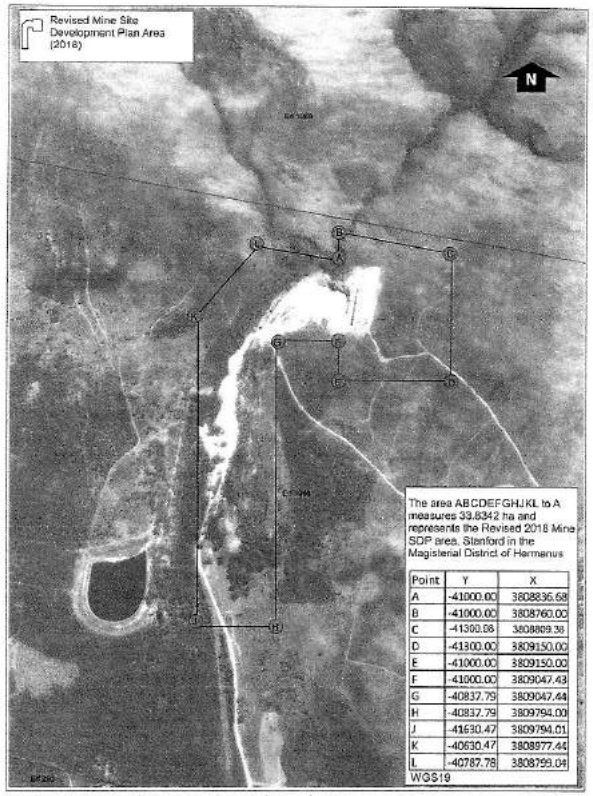
6.2. Recommendation

As motivated in this report the **amendment** of the existing Consent Use approval conditions 2(b), 3(a) and 3(b) as listed in section 2(a)(i), section (a)-(f) and Section 4 of the Decision Letter to the Applicant dated **10 April 2018 headed:** "ERF 1068, STANFORD, OVERSTRAND MUNICIPAL AREA: PROPOSED CONSENT USE" be **approved** in terms of the provisions of Section 61 of the By-Law:

(i) **Condition 2(b);** *that a Revised Mine Site Development Plan (2018) for the existing and extension mining area be submitted for approval to the satisfaction of the Senior Manager: Town and Spatial Planning*;
(ii) **Condition 3(a);** *that the approval of the continued use of the mine (existing and extension) is for the life of the extended mine*; and
(iii) **Condition 3(b);** *that the Mining Right Area (existing and extension) and the Excavation Area (existing and extension) on Erf 1068 be limited to the 2018 Revised Mine Site Development Plan and as submitted with the application*

Figure 24 depicts the spatial context of the amendments as per diagram A, B, C, D, E, F, G, H, J, K, L which defines the area of the proposed 2018 Revised Mine Site Development Plan (SDP) and **the Mining Right Area (33,8342ha)**, including a total excavation of 6ha, of which 3,5ha is within the existing excavation area and 2,5ha in the mine extension area.

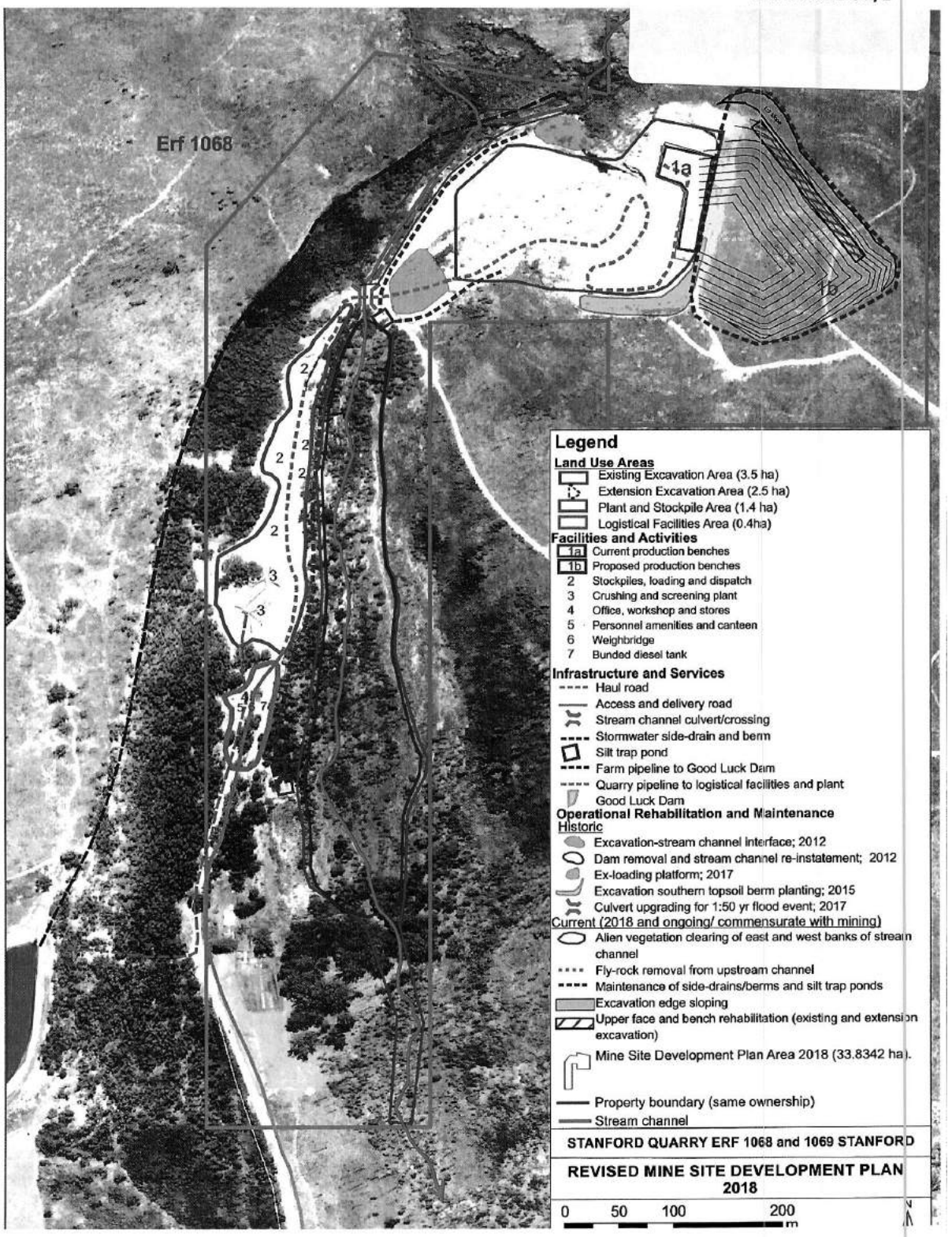
Furthermore, such approval of Amendment of the Conditions to be applicable to the period of the "life-of-mine".



Point	Y	X
A	-41000.00	3808836.68
B	-41000.00	3808760.00
C	-41300.08	3808809.38
D	-41300.00	3809150.00
E	-41000.00	3809150.00
F	-41000.00	3809047.43
G	-40837.79	3809047.44
H	-40837.79	3809794.00
J	-41630.47	3809794.01
K	-40630.47	3808977.44
L	-40787.78	3808799.04

Figure 24: Proposed Revised Mine Site Development Plan Area (2018)

ANNEXURE C 1/1



ANNEXURE D 1/4

STANFORD CONSERVATION
P.O.Box 539
Stanford 7210
NPO # 024-867

14 March 2019

RE: Application to extend Mining Rights on Erf 1068, Stanford

Dear Ms Conradie,

Thank you for circulating the above application to the Stanford Heritage Committee (SHC) for comment. SHC and the Stanford Conservation Trust (SCT), of which it is a subcommittee, are duly submitting this comment by way of response.

Due to the likely impacts that could result from the applicant receiving Environmental Authorisation, SCT and SHC sought advice and input from a Visual Impact Assessment practitioner resident in Stanford, Mr Bernard Oberholzer.

Below are the comments received from Mr Oberholzer:

Extension of Hard Rock Mining on Farm 1068, Stanford

As a visual specialist, I have been requested to make brief comment on the Visual Impact Assessment, included as Annexure Q (Appendix 7) in the Motivation Report prepared by Setplan (Dec. 2018).

1) This is an extremely minimal 'visual impact assessment' (VIA) and probably does not meet the DEA's requirements, nor the Provincial Government of the Western Cape's guidelines, for such a study. At best it can be called a 'visual statement'.

2) The 'VIA' does not include a viewshed map indicating the zone of visual influence of the proposed quarry extension. Neither does it include a map indicating the viewpoints from where photos were taken. There is no map indicating important landscape features and potential sensitive receptors (scenic routes, landowners, residents, and protected environments) with accompanying distance radii. Visual sensitivity criteria are not explicit or missing, by means of which the visual impacts can be measured.

3) No reference is made to the extensive heritage study prepared for the Overstrand, nor the role of the R43 Route as a scenic route, nor any of the guidelines contained in the heritage study.

4) Views of the quarry from the Wortelgat Road are not given. This is surprising given that the quarry is clearly visible from a number of points along the route, and that there are a number of establishments

along the Wortelgat route, which have both international and local tourism facilities. In addition, viewpoints along the route range from 3 to 8km distance, which would make these views significant.

5) Reference is made to a number of viewpoints along the R43 Route, together with photographs from these points. However, their position is not known. It is also not known what focal length was used in the Photos C to F taken along the R43. There is therefore no way of knowing if these accurately reflect what viewers would observe *in situ*.

6) Figure 11 on Page 33 of the Motivation Report indicates a number of 'Protected Areas' (Private and State) in the general area, but omits the Private Nature Reserve (owned by Grier), which abuts the western boundary of Stanford, also on the Wortelgat Road.

7) The mitigation measures indicated on Pages 25 and 30 of the Motivation Report are supported, but no information is given on how the implementation of these will be monitored or policed.

8) It is doubtful if the vertical faces of the proposed quarry benches will become vegetated, even over the long term, and therefore the visual impact of these can be considered 'permanent'.

The Stanford Heritage Committee, together with the Stanford Conservation Trust support Mr Oberholzer's comments and reservations about the VIA produced and submitted with this application.

The R43 has exceptionally high scenic value, while the natural and scenic beauty of the Kleinrivierberge along the stretch of road between Hermanus and Stanford lend character and sense of place to the region. Indeed, once past Voelklip, the only visual intrusion on the scenic views of the mountains along that stretch of road is the extant quarry. As such, an application to almost double the area under excavation should be considered carefully in terms of its impact on the natural and cultural landscapes as well as on the tourist appeal and potential of the area.

Neither the SCT nor the SHC believe that these matters have been properly addressed in the VIA conducted, nor that the VIA is fully compliant with DEA requirements for this type of work or the Provincial Government of the Western Cape's guidelines. We therefore request that a more thorough VIA is undertaken that addresses the concerns about the highly significant natural and cultural landscape of the region, as well as possible implications for tourism to and around Stanford.

Please do not hesitate to contact me should you have any questions in this regard.

Yours sincerely

Katie Smuts
Chair: Stanford Heritage Committee
On behalf of Liz Hochfelden
Chair: Stanford Conservation Trust

c.c. Ms N Cornelius, Overstrand Municipality, Stanford Administration: natalie@overstrand.gov.za.

Stanford Heritage Committee
PO Box 539 STANFORD 7210
stanfordheritage@gmail.com 072 796 7754

15 March 2019

RE: Application to extend Mining Rights on Erf 1068, Stanford

Dear Ms Conradie,

Further to the comment from the Stanford Conservation Trust (SCT), which was submitted to you yesterday that was supported by the Stanford Heritage Committee (SHC), SHC would like to raise the following points about the submission from a heritage point of view:

- The NID submitted in 2016 (HWC Ref 16012503) was not appropriate or adequate to the task at hand;
- The NID makes no reference to the Overstrand Heritage Survey of 2009;
- No mention is made of the proximity of the mining area to Stanford, which is a declared Heritage Area in terms of Section 31 of the NHRA (No. 25 of 1999);
- The NID disregards the undoubted impacts an extension of the mining area will have on the scenic qualities of the R43, which is considered a scenic route in terms of the Overstrand Heritage Survey of 2009, and which serves as the gateway to Stanford;
- No reference is made regarding the likely impacts on the rural cultural landscape of the area between Voelklip and Stanford;
- The NID focuses solely on tangible heritage resources, i.e. archaeological, palaeontological and built heritage resources and burial grounds and graves, and takes no cognisance of intangible resources, sense of place or cultural landscapes;
- While the NID is triggered by the change of character of an area greater than 5 000m^2, this concern is subsequently dismissed by referring to the degradation of the immediate area, with no consideration of the visibility of the quarry from various locations along the R43, as well as along the Wortelgat Road and along the Kleinrivier and its lagoon;

In reviewing this NID, in light of the above omissions, Heritage Western Cape has clearly not applied their minds and, in our opinion, their conclusion that no further heritage studies are required is incorrect. Stanford Heritage does not support this application in its current form, and supports the SCT in calling for an adequate VIA on which to base an assessment of the likely impacts to the natural and cultural heritage resources of the vicinity.

Yours sincerely

Katie Smuts
Chair

c.c. Ms N Cornelius, Overstrand Municipality, Stanford Administration: natalie@overstrand.gov.za.

ANNEXURE E 1/5

setplan
SETTLEMENT PLANNING SERVICES
PLANNING AND MANAGEMENT CONSULTANTS
PO Box 28 STRAND 7140 Western Cape SOUTH AFRICA
Tel: 021-854 4260 || Fax 021-854 4321
neville@setplan.com

OVERSTRAND MUNISIPALITEIT 02 MAY 2019 OVERSTRAND MUNICIPALITY

TRA Theart (S vd Merwe)

Administrator: Town and Spatial Planning Development
Overstrand Municipality
16 Paterson Street
Hermanus
7200

Our ref: 1619
Your ref: Erf 1068 Stanford
26 April 2019

FILE NO: E L 1068 Stanford
SCAN NO: STF 1068
COLLABORATOR NO: 1282216

Attention: Alida Conradie email: alida@overstrand.gov.za

ERF 1068, STANFORD: PROPOSED AMENDMENT OF CONDITIONS OF EXISTING APPROVAL

Your letter dated 25 March 2019 and email dated 25 April 2019 refers.

On receipt of the comment received from the Stanford Conservation Trust (SCT) and the Stanford Heritage Committee (SHC) (as per the Municipality's letter dated 25 March 2019), Setplan approached the SCT and SHC in order to discuss their concerns and provide an overview of the process followed in the planning and rehabilitation of the proposed Stanford Quarry extension, particularly regarding how and to what extent view-shed and landscape impact was considered.

Subsequent to SCT and SHC agreement, Setplan was invited to a meeting on 11 April 2019 in the Stanford municipal boardroom, with such meeting attended by the SCT Chairperson, members of the SHC and SCT, landscape architect Bernard Oberholzer (advisor to the SCT), farm owners from Wortelgat and Springfontein Roads, and a representative of the Ratepayers' Association. Setplan was supported by the Afrimat manager of Stanford Quarry and Site Plan Consulting (geologists responsible for identification/ demarcation/ licencing of the proposed extension).

The revised comment from both the SCT and SHC dated 16 April 2019 as attached to the Municipality's email of 25 April 2019 reflects the outcome of the meeting held. Accordingly Setplan's response on behalf of Afrimat (the operator of the Quarry) and the landowner to the 16 April 2019 revised comment of SCT and SHC is as follows:

(i) Welcome the retraction of comment (14 March 2019) by both the SCT and SHC.
(ii) Fully supports the requests made by both the SCT and SHC in their 16 April 2019 revised comment and endorses that such be included as approval conditions in the event of a favourable application outcome, including:
   - A quarry extension Environmental Monitoring Committee convened by Afrimat be put in place, with members of the SCT and SHC being invited to serve on such committee and members to receive all minutes from the monthly meetings of such Committee. Such Committee would also monitor the Rehabilitation Programme of both the extension and existing quarry.
   - An Environmental Control Officer (ECO) will be appointed by Afrimat to monitor all aspects of mining and rehabilitation at the Stanford Quarry in terms of the approved Environmental Management Programme of the mine.

- 2 MAY 2019

The meeting concluded with Afrimat's Stanford Quarry manager extending an invitation to the meeting members to visit the quarry and to put forward any further conditions of approval in response to the application. Furthermore, the Quarry Manager noted the link between approval of Quarry extension and construction material required for the current redevelopment of the R43 between Hermanus and Stanford.

Please contact our office in the event of any additional information being required.

Yours faithfully

Neville van der Westhuizen

TP-A Theart
(Sub/Merwe)

STANFORD CONSERVATION
P.O.Box 539
Stanford 7210
NPO # 024-867

16 April 2019

RE: Application to extend Mining Rights on Erf 1068, Stanford

Dear Ms Conradie,

Following from the presentation by representatives from Siteplan, Setplan and Afrimat, the Stanford Conservation Trust revises their previous comment to reflect the following:

1) The consultants made a presentation to the SCT and SHC on the 11 April 2019 indicating how the quarry would be extended and the proposed method of rehabilitation.

2) The consultants provided additional information in the form of a map and photographs indicating areas that would be visually affected, including the Wortelgat / Springfontein road, which was missing from their previous visual assessment.

3) The extension of the quarry would be into an area with a more gentle slope than the previous quarry excavations, and would therefore be less visible than the existing quarry face. The limits of the quarry extension have been clearly defined on site based on the topography.

4) The quarrying method that is proposed would allow for rehabilitation / re-vegetation of the quarry benches as the quarrying proceeds downslope.

5) The overburden that is removed could be used almost immediately for the upgrade of the R43 currently under construction. This is seen as a major benefit as it will reduce the storage of overburden on the quarry site and reduce transportation impacts and costs for importing fill material for long distances from elsewhere.

6) The quarry rehabilitation will be overseen by an environmental control officer (ECO) and a monitoring committee. Members of the Committee are invited to serve on this committee.

7) The Committee is invited to visit the quarry site and to add any further conditions of approval in their response to the application.

1

8) Based on the above information, the SCT withdraws its previous objection to the quarry extension, dated 14 March 2019, and wishes to be represented on the quarry extension Monitoring Committee, and to receive all minutes from the monthly meetings.

Please do not hesitate to contact me should you have any questions in this regard.

Yours sincerely

Katie Smuts
Chair: Stanford Heritage Committee
On behalf of Liz Hochfelden
Chair: Stanford Conservation Trust

c.c. Ms N. Cornelius, Overstrand Municipality, Stanford Administration: ncornelius@overstrand.gov.za.
Ms L. Isaacs, Overstrand Municipality, Town Planning: loriaanisaacs@overstrand.gov.za
Mr N. van der Westhuizen, Setplan: neville@setplan.com

STANFORD CONSERVATION

PO Box 539 STANFORD 7210
stanfordheritage@gmail.com 072 796 7754

16 April 2019

RE: Application to extend Mining Rights on Erf 1068, Stanford

Dear Ms Conradie,

Stanford Heritage Committee is grateful to the representatives from Siteplan, Setplan and Afrimat who presented to members of SHC and SCT on 11 April at the Stanford municipal boardroom.

Stanford Heritage Committee hereby retracts their comment of 14 March 2019 and supports the proposed extension of the mining area. This extension is to be undertaken with proper rehabilitation measures that will result in an amelioration of visual impacts. Should the material from the overburden be utilised for the R43 road upgrade, this rehabilitation could take place within a very short time frame, which is a highly desirable outcome and will have an almost immediate positive impact.

Yours sincerely

Katie Smuts
Chair

c.c. Ms N. Cornelius, Overstrand Municipality, Stanford Administration: ncornelius@overstrand.gov.za
Ms L. Isaacs, Overstrand Municipality, Town Planning: loriaanisaacs@overstrand.gov.za
Mr N. van der Westhuizen, Setplan: neville@setplan.com

ANNEXURE F 1/4

TRA Theart
(S uld Merwe)

OVERSTRAND MUNISIPALITEIT
25 FEB 2019
OVERSTRAND MUNICIPALITY

Eskom
Distribution

ALIDA CONRADIE
OVERSTRAND MUNICIPALITY

Date:
22 – 02 - 2019

Enquires:
Phumeza Qwashu
Tel: 021 980 3269
Fax: 021 980 3053

SIR/MADAM

PROPOSED DELOPMENT: AMENDMENT OF CONDITIONS OF EXISTING APPROVAL, ERF 1068, STANFORD.

OUR REF: 00394/19

Eskom has no objection to the proposed work as indicated in your application provided that the following conditions are adhered to:

I. No building may be erected within **9 (NINE) metres** from either side of the centre line from any Eskom **11 / 22kV power line** crossing the property involved or within **6 (SIX) metres** from any structure supporting mechanism.

II. No building may be erected within ***3 (THREE)*** metres from any Eskom underground cable.

III. The location of the cable from the Eskom transformer to the distribution box must be pointed out to the contractor by the owner and is the owner's responsibility.

IV. A copy of this letter / documentation must be handed to the contractor who must have it available on site.

V. That existing Eskom power lines and infrastructure are acknowledged as established infrastructure on the properties and any rerouting or relocation would be for the cost of the applicant/developer.

That Eskom rights or servitudes, including agreements with any of the landowners, obtained for the operation and maintenance of these existing power lines and infrastructure be acknowledged and honoured throughout its lifecycle which include, but are not limited to:

i. Having 24 hour access to its infrastructure according to the rights mentioned in (a) above.

ii. To perform maintenance (structural as well as servitude – vegetation management) on its infrastructure according to its maintenance programmes and schedules.

iii. To upgrade or refurbish its existing power lines and infrastructure as determined by Eskom.

iv. To perform any other activity not listed above to ensure the safe operation and maintenance of the Eskom power lines or infrastructure.

Western Region
Eskom Road, Brackenfell, 7560
PO Box 222, Brackenfell, 7561

Eskom Holdings SOC Limited Reg No 2002/015527/06

FILE NO: Erven 1068 & 1069
Stanford
SCAN NO:
STF 1068
COLLABORATOR NO:
1259285

25 FEB 2019

v. Eskom shall not be liable for the death or injury of any person, or for loss of or damage to any property, whether as a result of the encroachment or use of the area where Eskom has its services, by the applicant, his/her agent, contractors, employees, successors in title and assignee.

vi. The applicant indemnifies Eskom against loss, claims or damages, including claims pertaining to interference with Eskom services, apparatus or otherwise.

vii. Eskom shall at all times have unobstructed access to and egress from its services.

viii. Any development which necessitates the relocation of Eskom's services will be to the account of the developer.

PLEASE CONTACT AND MAKE APPOINTMENT: PIKETBERG CNC- BUKS BURGER 022 913 6311, 082 771 7646 BEFORE WORKING IN CLOSE PROXIMITY TO ANY ESKOM OVERHEAD POWER LINES.

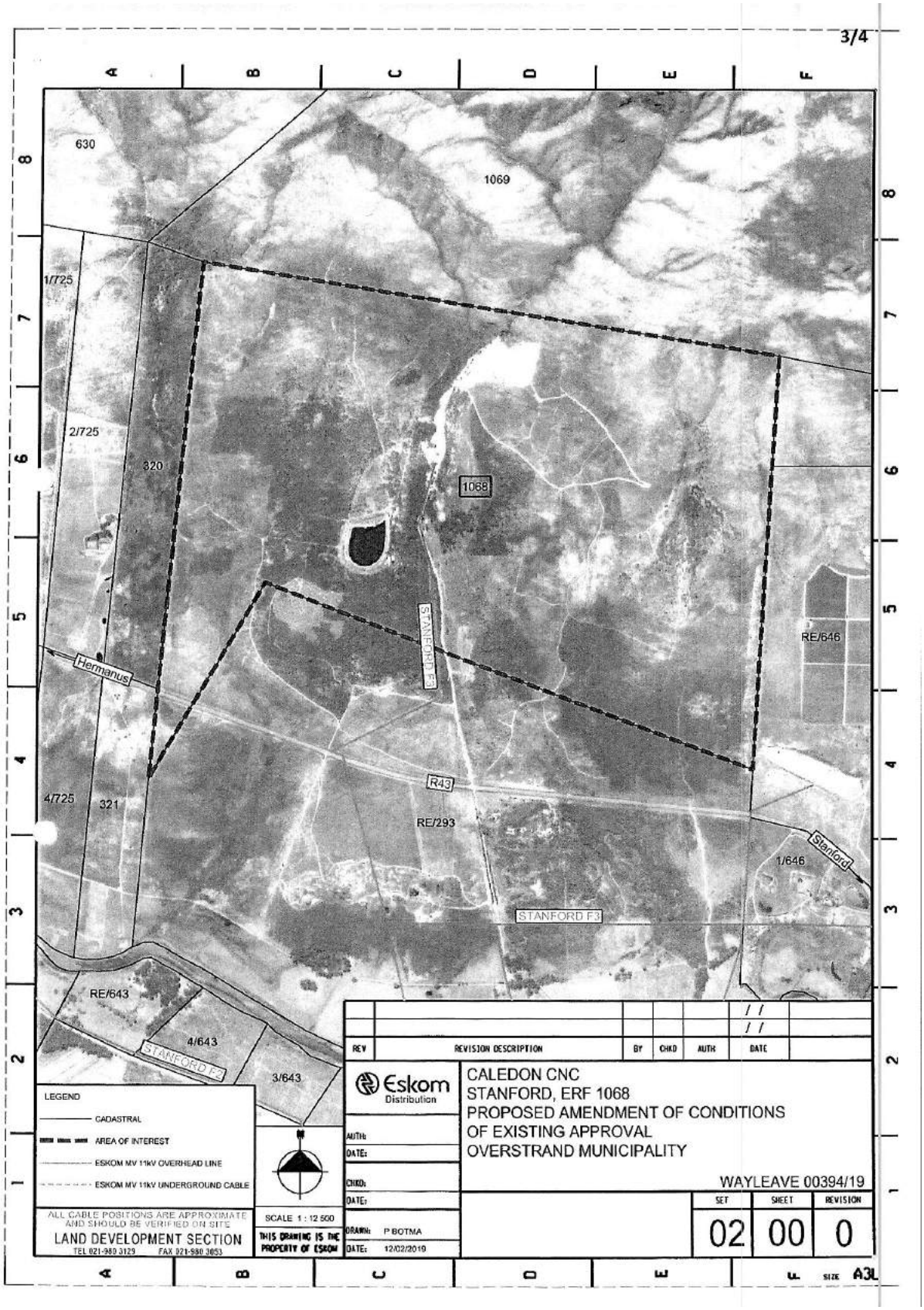
The above is a requirement under the **Occupational Health and Safety Act (Act No. 85 of 1993)** to ensure safety.

Please apply to your local Eskom office (Sales and Customers) for a new electricity connection or an increase in your supply.

Should it be necessary to move any of the Eskom services a written request must be given to the local Eskom office. It must be noted that it will take 3 month or longer to move any power line and that the cost of moving a power line will be for the applicant's account.

Yours sincerely

PHUMEZA QWASHU
LAND DEVELOPMENT


3/4
630
1069
1/725
2/725
320
1068
STANFORD F3
RE/646
Hermanus
R43
4/725
321
RE/293
Stanford
1/646
STANFORD F3
RE/643
4/643
STANFORD F2
3/643
LEGEND
CADASTRAL
AREA OF INTEREST
ESKOM MV 11kV OVERHEAD LINE
ESKOM MV 11kV UNDERGROUND CABLE
ALL CABLE POSITIONS ARE APPROXIMATE AND SHOULD BE VERIFIED ON SITE
LAND DEVELOPMENT SECTION
TEL 021-980 3129 FAX 021-980 3053
SCALE 1 : 12 500
THIS DRAWING IS THE PROPERTY OF ESKOM
REV REVISION DESCRIPTION BY CHKD AUTH DATE
Eskom Distribution
AUTH:
DATE:
CHKD:
DATE:
DRAWN: P BOTMA
DATE: 12/02/2019
CALEDON CNC
STANFORD, ERF 1068
PROPOSED AMENDMENT OF CONDITIONS
OF EXISTING APPROVAL
OVERSTRAND MUNICIPALITY
WAYLEAVE 00394/19
SET 02
SHEET 00
REVISION 0
SIZE A3L

ESKOM (WESTERN REGION)

OCCUPATIONAL HEALTH AND SAFETY ACT (Act No 85 of 1993) WITH REGULATIONS

D16 (7) Excavations

"The builder or excavator shall ascertain as far as possible the location and nature of underground services likely to be affected by the excavation and take such steps as may be necessary to prevent danger to persons".

THE ELECTRICITY ACT (Act No 41 of 1987)

Section 27 (3) : Offences and Penalties

"Any person who without legal right (the proof of which shall be upon him) cuts or damages or interferes with any apparatus for generating, transmitting or distributing electricity, shall be guilty of an offence and liable on conviction to a fine not exceeding R2 000,00 or to imprisonment for a period not exceeding twelve months".

ANNEXURE G 1/1

Western Cape Government
Environmental Affairs and Development Planning

DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 2)

E-mail : Gerhard.vanLille@westerncape.gov.za
Tel: +27 21 483 4588 Fax: +27 21 483 3633
Private Bag X9086, 1 Dorp Street, Cape Town, 8000
www.westerncape.gov.za/eadp

TP-A Theart (S Vd Merwe)

OVERSTRAND MUNISIPALITEIT
06 MAR 2019
OVERSTRAND MUNICIPALITY

ENQUIRIES: G van Lille
REFERENCE: 15/3/2/12/BO3

Director
Infrastructure & Planning
Overstrand Municipality
P O Box 20
HERMANUS
7200

Sir

e-mail: alida@overstrand.gov.za

ERF 1068, STANFORD: AMENDMENT OF CONDITIONS OF EXISTING APPROVAL

1. Your letter 1068 SSN (4242) dated 7 January 2019 refers.

2. This Directorate has, in principle, no objection to the proposed amendment of conditions 2(b), 3(a) and 3(b).

3. The proposed amendment of conditions of an existing approval to permit the extension of hard rock mining is compatible with the spatial planning policies for the Overstrand area. The main land use and zoning will remain for agricultural purposes.

4. The above-mentioned comment is based on the information received. The Department reserves the right to amend its comment should any additional or new information be obtained.

Yours faithfully

K. MUNRO
DIRECTOR: DEVELOPMENT MANAGEMENT: REGION 2
DATE: 6/3/19

FILE NO: EL 1068
Stanford
SCAN NO:
STF 1068
COLLABORATOR NO:
1263357

ERF 1068 STANFORD

ANNEXURE H 1/2

Western Cape Government
Transport and Public Works

OVERSTRAND MUNISIPALITEIT
26 MAR 2019
OVERSTRAND MUNICIPALITY

ROAD NETWORK MANAGEMENT
Email: Grace.Swanepoel@westerncape.gov.za
tel: +27 21 483 4669
Rm 335, 9 Dorp Street, Cape Town, 8001
PO Box 2603, Cape Town, 8000

REFERENCE: 16/9/6/1-21/86 (Job 23923)
ENQUIRIES: Ms GD Swanepoel
DATE: 13 March 2019

TP-A Theart
(P Roux)

The Municipal Manager
Overstrand Municipality
PO Box 20
HERMANUS
7200

FILE NO: EL 1068 Stanford
SCAN NO: STF 1068
COLLABORATOR NO: 1269016

Attention: Mr P Roux

Dear Sir

ERF 1068, STANFORD, OVERSTRAND MUNICIPAL AREA: TRUNK ROAD 28: PROPOSED AMENDMENT OF EXISTING APPROVAL: SETPLAN CC (OBO RICHARD METCALF FAMILY TRUST)

1. Your letter 1068 SSN (4242) dated 7 January 2019 refers.

2. The subject erven are located 3km north of Stanford and take access at ±km20.36 off Trunk Road 28/2.

3. This application is to amend the conditions of approval of an existing approval to permit the extension of hard rock mining.

4. This Branch previously commented that the access should be provided with a hard-surface. The application has noted this Branch's requirement and stated that it will be done with the reconstruction of Trunk Road 28.

5. As this quarry will be supplying the contract for Trunk Road 28, there is a concern that there will be excessive sand and gravel in the travel way of Trunk Road 28 at the access to the quarry during construction.

6. Accordingly, this Branch offers no objection to the application in terms of the Land Use Planning Act, No 3 of 2014 subject to regular sweeping away of sand and gravel in the vicinity of the access at ±km20.36 off Trunk Road 28/2.

Yours faithfully

SW CARSTENS
For CHIEF DIRECTOR: ROAD NETWORK MANAGEMENT

ANNEXURE I 1/2

Western Cape Government
Environmental Affairs and Development Planning

OVERSTRAND MUNISIPALITEIT
14 MAY 2019
OVERSTRAND MUNICIPALITY

Directorate: Development Management
(Region 1)

REFERENCE: 16/3/3/6/E2/37/1041/19
ENQUIRIES: BERNADETTE OSBORNE
DATE: 2019-04-25

FILE NO: EL 1068
Stanford
SCAN NO:
COLLABORATOR NO: 1258224

The Municipal Manager
Overstrand Municipality
PO Box 20
HERMANUS
7200

Attention: P Roux

Tel: (028) 313 8900
Fax: (028) 313 2093

Dear Sir/Madam

THE APPLICABILITY OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) ("NEMA") ENVIRONMENTAL IMPACT ASSESSMENT ("EIA") REGULATIONS, 2014: THE PROPOSED APPLICATION FOR THE AMENDMENT OF CONDITIONS OF THE EXISTING MUNICIPAL APPROVAL APPLICABLE TO ERF NO. 1068, STANFORD.

1. The abovementioned document and letter dated 7 January 2019, as received by this Department on 14 February 2019, refer.

2. On 7 April 2017 the Minister of Environmental Affairs promulgated amendments to the regulations in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), viz, the Environmental Impact Assessment ("EIA") Regulations, 2014 and Listing Notices 1, 2 and 3 published in Government Gazette No. 40772.

3. Based on the information provided it is this Department's understanding that the proposal entails the following:
   - The proposed application for the amendment of conditions of the existing approval applicable to Erf No. 1068, Standford in terms of the Overstrand By-Law of Municipal Planning for the extension of a mining area.
   - An Amended Environmental Authorisation ("EA") was issued on 10 October 2017 by the Department of Mineral Resources ("DMR") to extend the existing authorised mining area by 9.55ha.
   - This Department was a commenting authority on the application lodged with the DMR and provided comment on the application to the DMR on 25 May 2016 and 27 September 2016.

4. Your attention is therefore drawn to the listed activities in terms of the NEMA EIA Regulations, 2014 as defined in Listing Notices 1, 2 and 3. Please be advised that the Amended EA issued by the DMR authorised the proposed extension of the existing authorised mining area. The proposed amendment of conditions therefore **does not** constitute any newly listed activities, as defined in the NEMA EIA Regulations, 2014. A new EA or further amendments to the Amended EA issued by the DMR on 10 October 2017 is therefore not required prior to the proposed extension.

6th Floor, 1 Dorp Street, Cape Town, 8001
Tel: +27 21 483 3679 Fax: +27 21 483 3098
Email: Bernadette.Osborne@westerncape.gov.za

Private Bag X9086, Cape Town, 8000
www.westerncape.gov.za/eadp

5. However, should any revision of the proposed development constitute a listed activity(ies) in terms of the NEMA EIA Regulations, 2014 as defined in Listing Notices 1, 2 and 3 an application must be submitted and environmental authorisation obtained before such activity(ies) may commence.

6. The applicant must comply with any other statutory requirements that may be applicable to the development.

7. The applicant is reminded of his/her general duty of care and the remediation of environmental damage, Section 28(1) of NEMA specifically states that –*"Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment."*

8. This Department reserves the right to revise its initial comments and request further information from you based on any new or revised information received.

Yours faithfully

HEAD OF COMPONENT
ENVIRONMENTAL IMPACT MANAGEMENT SERVICES (REGION 1)
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING
Cc: (1) Liesl de Villiers / Penelope Aplon (Overstrand Municipality) Fax: (028) 316 4953

ANNEXURE J 1/8

Cape 20 YEARS
Twenty years of nurturing nature for you

SCIENTIFIC SERVICES
postal Private Bag X5014, Stellenbosch, 7599
physical Assegaaibosch Nature Reserve, Jonkershoek Road
website www.capenature.co.za
enquiries Chanel Rampartab
telephone +27 21 866 8015
email crampartab@capenature.co.za
reference SSD14/2/5/1/7/2/Erf1068_mining_amend_Stanford
date 23 May 2019

Overstrand Municipality
P.O. Box 20
Hermanus
7200

TR + Theart
(S vdl Merwe)

OVERSTRAND MUNISIPALITEIT
24 MAY 2019
OVERSTRAND MUNICIPALITY

Attention: Alida Conradie

Dear Ms Conradie

Application for amendment of existing mining right to expand mining area on Erf 1068, Stanford
(Overstrand Municipality ref: 1068 SSN (4242))

CapeNature would like to thank you for the opportunity to comment on the application for the proposed amendment of an existing mining right to expand the mining area on Erf 1068, Stanford. Please note that these comments only pertain to the biodiversity-related impacts and not to the overall desirability of the application.

According to the Western Cape Biodiversity Spatial Plan (CapeNature 2017), the entire property is classified as a Critical Biodiversity Area in good condition (CBA1), with the exception of small patches of CBA with restoration potential (CBA2) and Ecological Support Area in good condition (ESA1). A perennial tributary of the Klein River runs through the existing mining footprint, with its associated floodplain wetlands classified as a National Freshwater Ecosystem Priority Area (NFEPA). The site is also part of the National Strategic Water Source Area for both surface water and groundwater. The site contains critically endangered Kogelberg Sandstone Fynbos, and is likely to be ecotonal with critically endangered Elim Ferricrete Fynbos. The botanist previously recorded four species of conservation concern, and more may be likely. In addition, this region forms part of a climate adaptation corridor, and upland-lowland interface as well as watercourse protection for the Southern Folded Mountains.

CapeNature has provided detailed comments on this application, which can be referred to for further information (reference: SSD14/2/6/1/7/2/1068&1069_mining_Stanford, dated 26 September 2016; 24 February 2017; and 3 April 2017). CapeNature **objects** to the application based on the scale of the impact on an area of high biodiversity value.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.

Yours sincerely

Rampartab

Chanel Rampartab
For: Manager (Scientific Services)

FILE NO: EL 1068
Stanford
SCAN NO:
STF 1068
COLLABORATOR NO:
1287616

CapeNature

SCIENTIFIC SERVICES

postal	Private Bag X5014 Stellenbosch 7599
physical	Assegaaibosch Nature Reserve Jonkershoek
website	www.capenature.co.za
enquiries	Rhett Smart
telephone	+27 21 866 8017 **fax** +27 21 866 1523
email	rsmart@capenature.co.za
reference	SSD14/2/6/1/7/2/1068&1069_mining_Stanford
date	**13 April 2017**

Site Plan Consulting
P.O. Box 28
Strand
7139

Attention: Craig Donald
By email: craig@siteplan.co.za

Dear Craig

Freshwater Ecosystems Impact Assessment Report for the Mining Right Extension Application by Afrimat Aggregates (Pty) Ltd on Portions of Erf 1068 and Erf 1069, Stanford
(DMR ref. no. WC30/5/1/2/2/349MR)

CapeNature would like to thank you for the opportunity to comment on the proposed mining activities and would like to make the following comments. Please note that our comments only pertain to the biodiversity related impacts and not to the overall desirability of the application.

One of the major concerns raised by CapeNature and other parties in the comments on the Draft Environmental Impact Assessment (EIA) Report and Environmental Management Programme Report (EMPr) for the proposed project was the impact on the watercourse that flows through the site. A freshwater specialist study was recommended which has now been undertaken (although the field studies were undertaken in May 2015). It is noted that it is compiled for the purposes of a Water Use License Application however it addresses the concerns for the joint NEMA/MPRDA process.

The freshwater assessment describes the unnamed tributary of the Klein River which passes through the site and has divided it into five sections. The first section upstream of the current mine is undisturbed and in a good condition, however it is evident that the ecological condition of the stream has been highly significantly impacted in the next two sections of the watercourse which pass through the mining activities. The condition does improve slightly further downstream, however the current mining activities are impacting the entire length of the tributary downstream of the mining activity. The photographs and description provided support the motivation that there has been complete modification of the tributary and freshwater environment as a direct result of the mining activities.

Based on the information provided, it appears that all of the mining activities referred to have been linked to the same quarry. The initial mining activities which started in the 1996, consisted of mining of scree and alluvium from the alluvial plain and affected Reach C (the third section) of the watercourse. The next phase was the mining of the rock quarry which has affected Reach B (the second section) of the watercourse. It is for the extension of this rock quarry to which the application pertains.

The impact assessment section has utilized the pre-mining environment as a baseline against which the impacts are assessed, which is fully supported by CapeNature. As stated previously, the extension of the mine may result in impacts which are less significant than the initial mining activities, however since it forms part of the same project, the impacts as a result of all of the mining activities need to be taken into consideration.

Of the eleven impacts assessed, seven of these are rated as of high negative significance prior to mitigation. The assumption is made that this is the status quo as based on the information provided, the mining activities to date have not implemented adequate mitigation. The remaining four impacts are rated as medium negative significance. It is therefore clear that the mining activities have resulted in a highly significant impact and any further mining activity cannot be supported from a freshwater ecological perspective.

It is noted that the freshwater ecosystems impact assessment report has not provided a conclusion or recommendation. However, the information contained within the report provides further support to the **objection** which CapeNature provided in our comments on the Draft EIA/EMPr. The mining activities which have occurred to date have resulted in highly significant impacts, particular to the freshwater and estuarine environment, and therefore no expansion of these activities should be contemplated.

It should further be noted that another major concern which CapeNature raised in our comments on the Draft EIA/EMPr is the end use and rehabilitation of all of the mining activities on site, which has not been addressed.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.

Yours sincerely

Rhett Smart
For: Manager (Scientific Services)

cc. Elize Steenkamp, Department of Mineral Resources
Bernadette Osborne, Department of Environmental Affairs and Development Planning
Pierre de Villiers, CapeNature
Tierck Hoekstra, CapeNature

CapeNature

SCIENTIFIC SERVICES

postal Private Bag X5014 Stellenbosch 7599
physical Assegaaibosch Nature Reserve Jonkershoek
website www.capenature.co.za
enquiries Rhett Smart
telephone +27 21 866 8017 **fax** +27 21 866 1523
email rsmart@capenature.co.za
reference SSD14/2/6/1/7/2/1068&1069_mining_Stanford
date **24 February 2017**

Site Plan Consulting
P.O. Box 28
Strand
7139

Attention: Neville van der Westhuizen
By email: neville@siteplan.co.za

Dear Neville

Application for Consent Use for the Existing Afrimat Aggregates (Pty) Ltd Hard Rock Quarry on Portions of Erf 1068 and Erf 1069, Stanford
(Overstrand Municipality ref. no. 1068 SSS (3375))

CapeNature would like to thank you for the opportunity to comment on the application and would like to make the following comments. Please note that our comments only pertain to the biodiversity related impacts and not to the overall desirability of the application.

CapeNature responded to the consent use application, in which we referred to our formal comments on the Draft Environmental Impact Assessment Report and Environmental Management Programme Report for the joint MPRDA/NEMA process for the expansion of the existing mine. In summary, we objected to the application.

A response has been provided from the applicant's consultants clarifying that the application is only for the mining that has taken place to date and therefore our comments on the MPRDA/NEMA mine expansion process are not relevant. CapeNature accepts this and acknowledges the responses provided. It would have however been useful if a distinction between the two processes and the scope of activity was provided in the consent application, particularly as they are proceeding concurrently.

As the mining activity has already taken place in terms of this application, the impacts on biodiversity and the broader environment have also already occurred. Should consent use be considered further, this must be subject to stringent conditions. It must be ensured that the consent use only refers to area which has already been mined and already been approved. The extension area contemplated in the MPRDA/NEMA application (DMR ref. no. WC30/5/1/2/2/349MR), must not be included in the consent use.

The main concern regarding the current operations is the rehabilitation of the site. Based on the evidence available, rehabilitation on the site has been highly inadequate. There is evidence of widespread degradation both on the mining footprint and extending beyond down the slope and down the watercourse. There is not much evidence of rehabilitation (never mind restoration) of the disturbance footprint of the mine, based on the information provided within the MPRDA/NEMA application, the planning application and the full range of available Google Earth historical imagery.

CapeNature therefore recommends that the consent use must be subject to a detailed rehabilitation plan for the site. The MPRDA/NEMA application did include general high level rehabilitation principles, however this was not considered adequate in order to ensure the successful rehabilitation of the site.

A detailed rehabilitation plan must be compiled which must be subject to approval from the Overstrand Municipality and should also be provided to CapeNature for comment. A suitable end use for the site must be identified and the applicant must ensure that resources are provided to ensure the site is rehabilitated to an acceptable standard, as determined by the municipality and CapeNature. The rehabilitation plan should also include clear timelines and objectives that can be enforced.

In conclusion, CapeNature does not object to the consent use application, subject to well defined boundaries as described above and the approval of a detailed rehabilitation plan.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.

Yours sincerely

Rhett Smart
For: Manager (Scientific Services)

cc. Petrus Roux, Overstrand Municipality

CapeNature

SCIENTIFIC SERVICES

postal Private Bag X5014 Stellenbosch 7599
physical Assegaaibosch Nature Reserve Jonkershoek
website www.capenature.co.za
enquiries Rhett Smart
telephone +27 21 866 8017 fax +27 21 866 1523
email rsmart@capenature.co.za
reference SSD14/2/6/1/7/2/1068&1069_mining_Stanford
date **26 September 2016**

Site Plan Consulting
P.O. Box 28
Strand
7139

Attention: Craig Donald
By email: craig@siteplan.co.za

Dear Craig

Draft Environmental Impact Assessment Report and Environmental Management Programme Report for the Mining Right Extension Application by Afrimat Aggregates (Pty) Ltd on Portions of Erf 1068 and Erf 1069, Stanford
(DMR ref. no. WC30/5/1/2/2/349MR)

CapeNature would like to thank you for the opportunity to comment on the proposed mining activities and would like to make the following comments. Please note that our comments only pertain to the biodiversity related impacts and not to the overall desirability of the application.

Public/Authority Consultation

It must be noted up front that CapeNature was not notified of this application, despite the inclusion within the public participation section of an email addressed to CapeNature dated 28 April 2016 notifying of registration of interested and affected parties and the availability of the Scoping Report. This email was never received – it may have been addressed to the incorrect email address.

The first notification that CapeNature received of this application was on 3 June 2016 via a query from the Klein River Estuary Forum. CapeNature then contacted Site Plan Consulting and requested to be registered as an interested and affected party. We did not get a response from Site Plan however we did receive the Draft Environmental Impact Assessment (EIA) Report and Environmental Management Programme (EMPr) Report to which this comment pertains.

Therefore it must be noted that CapeNature was not notified during the Scoping Phase and were not afforded the opportunity to comment. Related to this, our initial concerns that would have been raised during the Scoping Phase would only be expressed now, and therefore are likely to result in a delay in the process in order to be addressed.

Biodiversity Background

The subject property is classified as Critical Biodiversity Area (CBA) according to the Overberg Conservation Plan. CapeNature is in the process of producing the province-wide provincial spatial biodiversity plan with updated CBA maps. On the draft internal version, the

site is classified as CBA, with the footprint of the existing mine CBA: Degraded. The natural vegetation occurring within the existing footprint and the proposed expansion is Overberg Sandstone Fynbos, listed as Critically Endangered.

There is a watercourse located on the western boundary of the existing quarry, although the disturbance footprint of the mining activities occurs within the riparian zone of the watercourse for some distance downstream. The watercourse is a tributary of the Klein River and it joins the upper end of the Klein River Estuary a short distance downstream. The riparian area referred to is classified as a floodplain wetland and is a National Freshwater Ecosystem Priority Area (NFEPA) wetland.

Specialist Studies

A botanical specialist study was undertaken. The study confirmed that there is intact Overberg Sandstone Fynbos present within the proposed expansion area, with a total of four Species of Conservation Concern encountered. The northern half of the proposed expansion area consists of good condition fynbos while the southern half was previously infested with pine trees which have since been cleared (it would appear that there have been fires in this area around 2012/2013 based on Google Earth imagery). The area of good condition fynbos is described as high conservation value and CapeNature objects to any mining in this area.

As stated above, the existing mining footprint is located adjacent to a watercourse with the disturbance footprint within the riparian area and floodplain wetland. Despite this, there has not been a freshwater specialist study undertaken. While the existing mining activities would be the primary source of the impact on the watercourse and wetland, the expansion of the mine will exacerbate the existing impacts. The existing impacts also need to be addressed and remediated.

If CapeNature had been provided the opportunity to comment during the Scoping Phase, we would have recommended that a freshwater specialist study should be undertaken in order to assess the additional impact and to provide recommendations to address the existing impacts. The freshwater specialist study should also assess the potential impact on the estuary, which is an estuary of national importance in terms of biodiversity, as well as the economy in terms of acting as a fish nursery and for tourism.

As stated above, CapeNature focuses on the mandate of biodiversity, however we wish to state that it must be ensured that other potential impacts are adequately assessed and reviewed by the relevant parties e.g. visual impact and tourism. In this case, addressing the biodiversity impacts can also address these impacts, particularly in relation to rehabilitation.

Rehabilitation

An important aspect to consider is the rehabilitation of the mining activity, in particular taking into consideration the precedent of the existing mine to date. It is stated that the existing approved EMPr for the site is now obsolete, and was undertaken prior to existing legislation and is unlikely to have been acceptable by current standards.

General rehabilitation principles have been included, with the aspects related to vegetation rehabilitation incorporated from the botanical specialist report. These proposed measures are supported.

However, the proposed end use of the mining activity has not been described. Some of the examples forwarded for rehabilitation of hard rock quarries are Blue Rock Quarry and Tygervalley Waterfront Quarry, however these would be highly inappropriate in this case as those are located within urban environments, not high up on a mountain slope surrounded by high conservation value fynbos (the Klein River Mountains are recognized as a hotspot for species diversity and endemism). Other photographs of rehabilitated hard rock quarries have been provided, however the proposal for this site has not been stated or detailed.

Although not described in any detail, there is evidence that the rehabilitation activities for the existing quarry to date have not been sufficient and that there have been impacts as a result of the activities including within the floodplain downstream of the quarry.

Although there is pristine fynbos higher up the slopes, there is evidently a significant alien invasive infestation on the site, which appears to have been exacerbated by the mining activities. It is evident that there have been alien clearing activities within the mining area, however there is still a significant infestation and the applicant must be responsible for ensuring that alien invasive species are removed from the designated mining area. It is noted that there is also a significant alien infestation beyond the mining area and the landowner should be alerted that they are required to remove alien invasive species in terms of the NEM:BA Alien and Invasive Species Regulations and CARA.

Alternatives

It is noted that alternatives have been mentioned and have been described as not feasible either due to logistical difficulties or unacceptably high impacts. This is noted however, more detail would be required before these could be dismissed. Although CapeNature are not the experts in mineral resources, rock aggregate cannot be considered a rare or strategic mineral, therefore the resource at the current location cannot be argued as not having alternative sources of the same mineral. Reference is made to the maps provided by the Council of Geoscience indicating that Stone Aggregate: Table Mountain Group is one of the most widely distributed mineral resources in the Western Cape.[1]

Conclusion

In conclusion, CapeNature **objects** to the application as currently proposed. While it is noted that many of the impacts are from the existing quarry and that the extensions would only be in addition to existing impacts, we cannot condone the continuation and expansion of an existing undesirable activity. Should this application be considered any further, a freshwater specialist study will be required and a more detailed rehabilitation plan must be compiled with a single well defined end use that is acceptable from a biodiversity perspective.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.

Yours sincerely

Rhett Smart
For: Manager (Scientific Services)

cc. Elize Steenkamp, Department of Mineral Resources
Bernadette Osborne, Department of Environmental Affairs and Development Planning

[1] Cole, D.I., Ngcofe L. and K. Halenyane (2014): *Mineral Commodities in the Western Cape Province, South Africa*, Council for Geoscience

ANNEXURE K 1/4

setplan
SETTLEMENT PLANNING SERVICES
PLANNING AND MANAGEMENT CONSULTANTS
PO Box 28 STRAND 7140 Western Cape SOUTH AFRICA
Tel: 021-854 4260 || Fax 021-854 4321
neville@setplan.com

OVERSTRAND MUNISIPALITEIT
28 JUN 2019
OVERSTRAND MUNICIPALITY

TP A Theart (Stellenbosch)

The Administrator
Town and Spatial Planning Department
Overstrand Municipality
PO Box 20
Hermanus
7200

Our ref: 1619
28 June 2019

Attention: Alida Conradie alida@overstrand.gov.za
Solly Potgieter solly.potgieter@afrimat.co.za

ERF 1068 STANFORD: PROPOSED AMENDMENT OF CONDITIONS OF EXISTING APPROVAL: SETPLAN CC ON BEHALF OF RICHARD METCALF FAMILY TRUST

Your email dated 4 June 2019 and attachment of CapeNature letter dated 23 May 2019 from Chanel Rampartab: Scientific Services refers.

In response, Setplan forwarded our written concern regarding the objection, particularly given that it was based on certain misconceptions, inaccuracies and misunderstandings; requesting a meeting with Scientific Services to demonstrate the spatial planning employed in reducing the impact of proposed quarry extension on botanical and other natural systems to acceptable limits.

Accordingly, a meeting was scheduled by Scientific Services and attended by Setplan (on behalf of the landowner and applicant for the Consent Use application), Site Plan Consulting (consultant geologists and mine planners to Afrimat) and Solly Potgieter (regional quarry manager for Afrimat Aggregates (Operations) Pty Ltd) on Thursday 20 June 2019. Subsequent to the meeting Setplan, at the request of Scientific Services, forwarded additional documentation to Rhett Smart for consideration, with Rhett Smart noting that a revised comment would be forwarded.

Attached please find a revised comment from CapeNature: Conservation Intelligence to Site Plan Consulting putting forward their support for the current land use application subject to certain conditions (refer letter dated 27 June 2019 from Rhett Smart).

In view of the above-mentioned letter please advise Setplan on the way forward, noting that approval consideration of the application is of paramount concern given the road building material requirement of the R43 between Hermanus and Stanford.

Yours faithfully

Neville van der Westhuizen

28 JUN 2019

FILE NO: EL 1068 Stanford
SCAN NO:
COLLABORATOR NO: 1296362

Cape 20 YEARS

Twenty years of nurturing nature for you

CONSERVATION INTELLIGENCE

postal	Private Bag X5014 Stellenbosch 7599
physical	Assegaaibosch Nature Reserve Jonkershoek
website	www.capenature.co.za
enquiries	Rhett Smart
telephone	+27 21 866 8017 fax +27 21 866 1523
email	rsmart@capenature.co.za
reference	SSD14/2/6/1/7/2/1068&1069_mining_Stanford
date	27 June 2019

Site Plan Consulting
P.O. Box 28
Strand
7139

Attention: Neville van der Westhuizen
By email: neville@siteplan.co.za

Dear Neville

Additional Information for the Application for Amendment to the Existing Consent Use for the Expansion of the Existing Afrimat Aggregates (Pty) Ltd Hard Rock Quarry on Portions of Erf 1068 and Erf 1069, Stanford (Overstrand Municipality ref. no. 1068 SSN (4242))

CapeNature would like to thank you for the opportunity to comment on the application. Please note that these comments only pertain to the biodiversity-related impacts and not to the overall desirability of the application.

CapeNature commented on the amendment consent use application for the expansion of the quarry, in which we objected to the application, due to concerns which had been raised in previous comments related to the mining activities on site which had not been resolved. Subsequent to this a meeting was held between CapeNature, the applicant and the planning consultant in order to address concerns and determine a way forward. Additional information has been forwarded to CapeNature.

One of the primary concerns of CapeNature is the damage to the natural environment which has already taken place as a result of the mining activities on the site to date. Clarification has been provided that the mining activities were initiated several decades ago, prior to any current legislation, starting with mining of alluvial rocks within the tributary on site which resulted in significant impacts. Despite this, the stance from CapeNature is that the damage which has taken place must be remediated and rehabilitated regardless of the original requirements of the initial approvals, and that this does affect the desirability of the expansion of mining activities on site, apart from the fact that the expansion will be into Critically Endangered vegetation (Overberg Sandstone Fynbos) classified as Critical Biodiversity Area (CBA).

It should be noted that the approvals referred to above are in terms of the relevant mining and environmental legislation, whereby the expansion activities required approval in terms of the National Environmental Management Act (NEMA) and Mineral and Petroleum Resources

Development Act (MPRDA). CapeNature did object to the NEMA/MPRDA application as we had requested that a comprehensive site-specific rehabilitation plan and associated monitoring is required before the application could be considered further. The application was however approved without any of CapeNature's concerns being addressed.

Consent use for the initial activities was however applied for, as planning approval was not deemed to have been provided. CapeNature did once again request a detailed rehabilitation plan for the activities which had taken place. It should be noted that CapeNature did not object to the high level rehabilitation proposal as included in the Environmental Management Programme (EMPr), however a detailed plan which could be audited was required.

Subsequent to the meeting, the EMPr, Closure Plan and an extract from the amendment to the conditions of approval was forwarded to CapeNature. These documents describe the proposed rehabilitation of the site, which CapeNature agrees to in principle. The other outcome of the meeting was that CapeNature should be represented on the existing Environmental Monitoring Committee (EMC) for the mining activities on site. Although the existing EMC is constituted in terms of the NEMA/MPRDA approval, this can also be a requirement of the planning approval.

Based on the EMPr, the EMC meets annually, however this is too infrequent in order to address concerns that may arise. We therefore recommend that the EMC meeting must take place at least quarterly until the closure of all mining and rehabilitation activities, and that representation on the EMC should include the Overstrand Municipality, Breede Gouritz Catchment Management Agency, Klein River Estuary Forum and DEA&DP, in addition to CapeNature. Rehabilitation of both the historical and current mining activities must be a standing item on the EMC agenda. The EMC should have the authority to issue a stop works order should there be any significant non-compliance until such time that the concern has been addressed. The applicant should address concerns raised at the EMC, whereby a decision-making protocol should be instituted.

The urgency of the approval of this application was indicated in the meeting as a result of the requirement for material for the R43 Hermanus-Stanford upgrade. With this in mind, CapeNature is willing to remove our objection to the consent use amendment application, however only the subject to the following which must be included as conditions of approval:

- The measures included in EMPr, Closure Plan and Conditions of Approval amendment application must be strictly implemented. In particular, all of the measures contained within Section 7: Impact Management Action of the EMPr must be implemented.
- An EMC must be constituted which must adhere to the provisions described above. CapeNature must be a member of the EMC.
- An independent Environmental Control Officer (ECO) must be appointed in order to monitor compliance with the EMPr and all other relevant documentation. Site visits must be conducted once a week as a minimum. The ECO should chair the EMC meetings and detailed compliance reports should be compiled for each EMC meeting.
- Should any Species of Conservation Concern be encountered during search and rescue, CapeNature should be consulted regarding the way forward.
- The recommendations of the freshwater ecosystems impact assessment report must be implemented. This includes the water quality monitoring of the watercourse, however we recommend that there should be an additional monitoring point where the watercourse enters the estuary.

If the above measures are implemented, concerns previously raised regarding rehabilitation, in particular related to monitoring and compliance, can be addressed.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.

Yours sincerely

Rhett Smart
For: Manager (Conservation Intelligence)

cc Alida Conradie, Overstrand Municipality
Chanel Rampartab, CapeNature

ANNEXURE L 1/3

Cape 20 YEARS

Twenty years of nurturing nature for you

CONSERVATION INTELLIGENCE

postal Private Bag X5014 Stellenbosch 7599
physical Assegaaibosch Nature Reserve Jonkershoek
website www.capenature.co.za
enquiries Rhett Smart
telephone +27 21 866 8017 fax +27 21 866 1523
email rsmart@capenature.co.za
reference SSD14/2/6/1/7/2/1068&1069_mining_Stanford
date 27 June 2019

OVERSTRAND MUNISIPALITEIT / OVERSTRAND MUNICIPALITY
28 JUN 2019

TR A Theart (Souldmerwe)

FILE NO: Erven 1068&1069 Stanford
SCAN NO: STF 1068
COLLABORATOR NO: 1296024

Site Plan Consulting
P.O. Box 28
Strand
7139

Attention: Neville van der Westhuizen
By email: neville@siteplan.co.za

Dear Neville

Additional Information for the Application for Amendment to the Existing Consent Use for the Expansion of the Existing Afrimat Aggregates (Pty) Ltd Hard Rock Quarry on Portions of Erf 1068 and Erf 1069, Stanford (Overstrand Municipality ref. no. 1068 SSN (4242))

CapeNature would like to thank you for the opportunity to comment on the application. Please note that these comments only pertain to the biodiversity-related impacts and not to the overall desirability of the application.

CapeNature commented on the amendment consent use application for the expansion of the quarry, in which we objected to the application, due to concerns which had been raised in previous comments related to the mining activities on site which had not been resolved. Subsequent to this a meeting was held between CapeNature, the applicant and the planning consultant in order to address concerns and determine a way forward. Additional information has been forwarded to CapeNature.

One of the primary concerns of CapeNature is the damage to the natural environment which has already taken place as a result of the mining activities on the site to date. Clarification has been provided that the mining activities were initiated several decades ago, prior to any current legislation, starting with mining of alluvial rocks within the tributary on site which resulted in significant impacts. Despite this, the stance from CapeNature is that the damage which has taken place must be remediated and rehabilitated regardless of the original requirements of the initial approvals, and that this does affect the desirability of the expansion of mining activities on site, apart from the fact that the expansion will be into Critically Endangered vegetation (Overberg Sandstone Fynbos) classified as Critical Biodiversity Area (CBA).

It should be noted that the approvals referred to above are in terms of the relevant mining and environmental legislation, whereby the expansion activities required approval in terms of the National Environmental Management Act (NEMA) and Mineral and Petroleum Resources

Development Act (MPRDA). CapeNature did object to the NEMA/MPRDA application as we had requested that a comprehensive site-specific rehabilitation plan and associated monitoring is required before the application could be considered further. The application was however approved without any of CapeNature's concerns being addressed.

Consent use for the initial activities was however applied for, as planning approval was not deemed to have been provided. CapeNature did once again request a detailed rehabilitation plan for the activities which had taken place. It should be noted that CapeNature did not object to the high level rehabilitation proposal as included in the Environmental Management Programme (EMPr), however a detailed plan which could be audited was required.

Subsequent to the meeting, the EMPr, Closure Plan and an extract from the amendment to the conditions of approval was forwarded to CapeNature. These documents describe the proposed rehabilitation of the site, which CapeNature agrees to in principle. The other outcome of the meeting was that CapeNature should be represented on the existing Environmental Monitoring Committee (EMC) for the mining activities on site. Although the existing EMC is constituted in terms of the NEMA/MPRDA approval, this can also be a requirement of the planning approval.

Based on the EMPr, the EMC meets annually, however this is too infrequent in order to address concerns that may arise. We therefore recommend that the EMC meeting must take place at least quarterly until the closure of all mining and rehabilitation activities, and that representation on the EMC should include the Overstrand Municipality, Breede Gouritz Catchment Management Agency, Klein River Estuary Forum and DEA&DP, in addition to CapeNature. Rehabilitation of both the historical and current mining activities must be a standing item on the EMC agenda. The EMC should have the authority to issue a stop works order should there be any significant non-compliance until such time that the concern has been addressed. The applicant should address concerns raised at the EMC, whereby a decision-making protocol should be instituted.

The urgency of the approval of this application was indicated in the meeting as a result of the requirement for material for the R43 Hermanus-Stanford upgrade. With this in mind, CapeNature is willing to remove our objection to the consent use amendment application, however only the subject to the following which must be included as conditions of approval:

- The measures included in EMPr, Closure Plan and Conditions of Approval amendment application must be strictly implemented. In particular, all of the measures contained within Section 7: Impact Management Action of the EMPr must be implemented.
- An EMC must be constituted which must adhere to the provisions described above. CapeNature must be a member of the EMC.
- An independent Environmental Control Officer (ECO) must be appointed in order to monitor compliance with the EMPr and all other relevant documentation. Site visits must be conducted once a week as a minimum. The ECO should chair the EMC meetings and detailed compliance reports should be compiled for each EMC meeting.
- Should any Species of Conservation Concern be encountered during search and rescue, CapeNature should be consulted regarding the way forward.
- The recommendations of the freshwater ecosystems impact assessment report must be implemented. This includes the water quality monitoring of the watercourse, however we recommend that there should be an additional monitoring point where the watercourse enters the estuary.

If the above measures are implemented, concerns previously raised regarding rehabilitation, in particular related to monitoring and compliance, can be addressed.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.

Yours sincerely

Rhett Smart
For: Manager (Conservation Intelligence)

cc Alida Conradie, Overstrand Municipality
Chanel Rampartab, CapeNature

ANNEXURE M 1/2

COMMENTS FROM THE ENGINEERING SERVICES DEPARTMENT FOR: APPLICATION FOR AMENDMENT OF CONDITIONS OF EXISTING APPROVAL: ERF 1068, STANFORD (4242)

Electricity	:	Eskom area
Stormwater	:	No services available
Water	:	No services available
Sewer	:	No services available
Roads and traffic	:	No services available

Conditions:

1. that the developer arrange with ESCOM for the provision of electricity and that he complies with all conditions as may be set by ESCOM;

2. that no water service from Overstrand Municipality is available and the developer will be responsible to obtain the necessary approval, licence and permit from the applicable authorities (water affairs, health, BOCMA etc.) for the use of any other water resources and the extraction thereof;

3. that the quality of potable water comply with SANS0241 standards and that relevant proof be submitted to the Senior Manager: Engineering Services, Overstrand Municipality;

4. that waste water disposal be done in a safe and healthy manner and that plans thereof be submitted to the Municipality and DWA for approval;

5. that the proposed development on Erf 1068 is provided with adequate sewer conservancy tanks, which must comply with the standards of the Department: Operational Services, and to which the sewer services of the development must connect to;

6. that on-site parking be provided. The parking areas are to be provided as described by the Town Planning Scheme;

7. that, as no municipal sewerage removal services are rendered in the area, the owner is responsible for removal of all sewerage generated on the property, and disposal thereof at a licensed municipal sewerage treatment facility.

8. that, as no municipal refuse removal services are rendered in the area, the developer is responsible for removal of all refuse generated on the property, and disposal thereof at a registered municipal waste transfer station or –waste disposal facility.

D.P. H Cloete
DENNIS HENDRIKS
SENIOR MANAGER:
ENIGINEERING SERVICES

31/05/2019
DATE