IN THE WATER TRIBUNAL **WT02/18/ MP**
HELD AT PRETORIA

In the appeal of:

THE TRUSTEES OF THE GROUNDWORK TRUST **APPELLANT**

AND

ACTING DIRECTOR-GENERAL: **FIRST RESPONDENT**
DEPARTMENT OF WATER AND SANITATION

ACWA POWER, KHANYISA THERMAL **SECOND**
RESPONDENT
POWER STATION (RF) PTY LTD

APPEAL DECISION

Panel

Murombo. T (Additional Member – Panel Chair).
Kvalsvig. S (Additional Member).

Hearing dates: 22-24 October 2019.
Final closing submissions: 25 November 2019.
Decision: 27 March (draft), 21 July 2020 (final).

Appearances

Appellant: Adv. Pienaar, A. instructed by the Centre for Environmental Rights (Ms Hugo, R & Ms Koyama, M)

First Respondent: Adv. Lebale, S. with Adv. Tjiana, M. instructed by the State Attorney

Second Respondent: Adv. Friedman, A. instructed by Faskens Attorneys (Ms. Bezuidenhoudt, L.)

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Introduction and background

1. This is an appeal in terms of section 148(1)(f) of the National Water Act, 36 of 1998 (NWA) by Groundwork against the decision by the Acting Director General: Department of Water and Sanitation (first respondent) to issue a water use licence (WUL) to ACWA Power Khanyisa Thermal Station (RF) (Pty) Ltd (second respondent). Once the matter was ready for hearing the Registrar set it down for 6 September 2019, whereupon the appellant indicated that it was not ready, its counsel was not available, and it needed further documents and time to consult experts. The matter was then rescheduled and set down for hearing from 22 to 24 October 2019 with necessary directives on the filing of submissions and provision of necessary outstanding documents.[1]

2. The second respondent applied for a WUL on 3 December 2016 which was granted on 7 December 2017. The WUL is in respect of certain specified water uses in relation to a circulating fluidized coal-bed electricity generating plant (the Khanyisa Project).[2] This project is proposed to be located in eMalahleni and it is part of the then Department of Energy's 2012 Coal Baseload Independent Power Producers programme (the CBIPP programme.) The original bidder was Anglo Operations (Pty) Ltd which subsequently transferred the project to the second respondent sometime in late 2016. The details of the project, its specifications, capacity, lifetime and description are self-evident in the Record of Recommendations (ROR)[3] read with the WUL no *06/B11F/CGIHE/6684*.[4] In particular, the application

[1] Directive by the Chairperson of the Water Tribunal dated 29 August 2019 and 16 September 2019.
[2] The technology to be used on this plant is described as follows: "It is proposed that the Power Station will utilise Circulating Fluidised Bed (CFB) technology because it has the advantage of being able to burn coal with a wide range of properties and hence can cope with high ash and high sulphur discard coal reserves, which are proposed as the fuel source of the project. The removal of sulphur from the coal during the combustion process will be achieved in CFB boilers by the addition of limestone, which acts as a sorbent. The proposed Power Station will be a dry-cooled station using Air Cooled Condensers (ACCs). The use of dry cooled technology is necessitated as a result of South Africa being a water scarce country and limited water availability in the area. The proposed Power Station will be designed to be a zero liquid effluent discharge station. Particulate emissions will be within IFC guidelines for degraded air-sheds due to the sufficient quantities of lime proposed for the CFB units. The plant will be Flue Gas Desulphurization (FGD) ready and a decision and timing retrofitting the Power Station with FGD will be based on ambient air quality monitoring results and South African regulations, including proposed emission limits and water availability."
[3] Tribunal Record, page 36.
[4] WUL, s3-30 Tribunal Record. There were two records in this matter, firstly the **Tribunal Record** (4829pages) containing the record of documents provided to the Tribunal and the parties by the first respondent and then the **Appeal Record** (about 1500pages) consisting of the appeal documents and exhibits. The transcribed record of these proceedings is another 683 pages (**Record of Proceedings**). The records shall be referenced accordingly throughout this decision.

is briefly described as follows in the WUL:

> "The applicant, Acwa Power Khanyisa Thermal Power Station (RF) Ply Ltd applied for an integrated water use licence in terms of section 21(c), 21(g), 21(h) and 21(i) of the National water Act, 1998 (Act 36 of 1998)[5] for 5 km Bulk Water Supply Pipeline crossing Noupoort River and Hillslope wetland (6) and is within the 500m of Hillslope Seepage wetland (5); Road Re-Alignment crossing Hillslope Seepage Wetlands (1 & 6) and within 500m of Hillslope Seepage Wetland (5); Power Station crossing part of hillslope seepage wetland (1) and within 500m of Hillslope Seepage wetland (5); Dirty Stormwater Pond 7 within 500m of an unchanneled Valley Bottom wetland; Dirty Stormwater Pond 8 within 500m of an unchanneled Valley Bottom wetland; Ash Disposal Site within 500 m of pans and unchanneled valley bottom wetland; Khanyisa, 400Kv substation within 250m of a seepage wetland; Irrigation of garden with sewer effluent; Ash Disposal Facility; 11:vaporation pond; Reclaimed Water Recovery Basin; Dirty Water Recovery Facility; Water/Steam Cycle Unit; Irrigation Water Recovery Pond; eleven (11) Dirty Stormwater Facilities; Septic Tanks at the Ash Disposal Area and Substation."[6]

3. In terms of capacity and feedstock the ROR states that:

> "The proposed Power Station with the total capacity of 600MW, would compromise of two 153 MW generating units fuelled by discard coal with a total nominal electricity generation capacity of approximately 306 MW. The proposed Power Station will also utilise reclaimed and treated mine water from eMalahleni Water Reclamation Plant (EWRP). The existing coal dumps that will be used as the source of coal supply include Blauwkrans and Klippan (Kleinkopje) amongst others."[7]

We reproduce these facts to dispel some notions of lack of clarity and confusion regarding the capacity of the plant. There is a difference between installed capacity of a plant and its actual electricity generating proficiency.

4. The WUL is valid for twenty (20) years with reviews every five (5) years.[8] The authorised water uses are as follows:

> Section 21 (c) impeding or diverting the flow of water in a watercourse.
> Section 21(e): Engaging in a controlled activity: irrigation of any land with waste or water containing waste.
> Section 21(g): disposing of waste in a manner which may detrimentally impact on a water resource.
> Section 21(h): disposing of water that has been heated.

[5] Section 21(e) use is not mentioned but fully authorized in the WUL, see page 14 Tribunal Record.
[6] Tribunal Record, page 5.
[7] Tribunal Record, page 34.
[8] Tribunal Record, page 4.

Section 21(i): altering the bed, bank course or characterises of a watercourse. [9]

5. The process followed in the submission and consideration of the WUL application is detailed at page 35 of the Tribunal Record. This document trail shows the timeline from the November 21, 2016 initial assessment up to the time when internally the granting of the WUL was recommended on 27 October 2017. The WUL was then eventually issued on 7 December 2017.

6. The appellant lodged its appeal against the WUL on 8 August 2018 and supplemented this appeal on 18 February 2019 with a caveat that it reserved the right to further supplement this appeal once it obtained further documents from the ROR supposedly omitted by the respondents. It is important to note upfront that the ROR is not the *reasons for the decision* or the *record of decision* (ROD). The ROR is an internal document developed by the case officer and specialists based on which a decision is recommended to the responsible authority, the Director-General. Therefore, we should state upfront that persistent requests for the complete ROR and its supporting documents[10] as the "reasons for the decisions" are misplaced. While the documents before the decision maker are supposedly the basis for a decision, they are not necessarily the reasons for the final decision.

7. It is for the responsible authority to compile for the appellant what his/her reasons for making the decisions were. That is why we referred to the trail of documents recorded at page 35 of the Tribunal Record. Once the ROR was finalised on 27 October 2017 and submitted to the responsible authority, the latter could make a decision other than that recommended in the ROR or vary the recommendations therein. It is the reasons for the decision made on 7 December 2017 by the responsible authority that the NWA refers to in sections 42 and 148(3)(c) and not the complete ROR or supporting documents and reports.

8. Nevertheless, to conclude on this procedural aspect we ruled that the appellants had enough documents to lodge an appeal and that they had *locus standi* as a

[9] Tribunal Record, page 3.
[10] See Letter from Appellant's attorneys at page 245 Appeal Record.

person who had lodged an objection to the WUL application timeously.

The Grounds of Appeal

9. The appellant states and substantiates its grounds of appeal in some 450 pages. The specific grounds are state as follows:[11]

    a) The Decision is in violation of the constitutional rights to an environment not harmful to health or wellbeing, dignity and equality (as set out in sections 24, 10, and 9 of the Constitution of the Republic of South Africa, 1996 (the "Constitution")) and the duties of care entrenched in section 19 of the NWA and section 28 of the National Environmental Management Act 107 of 1998 ("NEMA").

    b) The Director-General of the First Respondent (DG) failed to take proper account of the relevant factors, as required in terms of section 27 of the NWA, when awarding the WUL.

    c) The Decision undermines the duty of the DG to act as public trustee of South Africa's water resources to *"ensure that water is protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner, for the benefit of all persons and in accordance with its constitutional mandate" a*s required in terms of section 3 of the NWA *et al.*

    d) The Decision undermines the national resource water and catchment management strategies and is therefore in breach of the obligations of the DG in terms of sections 7 and 11 of the NWA to give effect to these strategies when exercising any duty or performing any power under the NWA.

    e) By endangering the reserve, the Decision is in breach of the DG's obligations in terms of section 18 of the NWA to give effect to the reserve when exercising any duty or performing any power under the NWA.

    f) The Decision contravenes the principles under section 2 of NEMA, imposed on "*the actions of all organs of state that may significantly affect the environment*", in particular but not limited to consideration of the precautionary principle,[12] the polluter pays principle,[13] the promotion of public participation, and principles generally applicable to sustainable development.[14]

    g) The Decision violates the right to procedurally fair administrative action in terms of section 33 of the Constitution, and section 3 of the Promotion of Administrative Justice Act 3 of 2000 ("PAJA"), as well as the provisions of NEMA,[15] in that *inter*

[11] Appeal Record, page 17-19 (footnotes below are original).
[12] NEMA section 2(4)(a)(vii).
[13] NEMA section 2(4)(p).
[14] section 2(4)(f).
[15] NEMA section 1(5).

alia:

i. there was inadequate notice of the nature and purpose of the application for the WUL;[16]

ii. there was no reasonable opportunity to make representations in respect of the application of the WUL;

iii. the Decision is irrational;[17]

iv. the Decision is as a result of an account for irrelevant considerations and a failure to account for relevant considerations;[18] and/or

v. the Decision was taken arbitrarily or capriciously.[19]

10. The supplementary grounds of appeal include further grounds, some of which were not addressed at all during the hearing. These include that "Khanyisa does not have a WUL for all Activities under section 21 of the NWA", that "Conditions in the WUL are Unreasonably Vague and Unenforceable", among other further complaints.

Points *in limine:* Jurisdiction of the Tribunal and Appellant's *Locus Standi.*

11. The Water Tribunal is established in terms of section 146 of the NWA and its jurisdiction and mandate is provided for in section 148 of the NWA. Regarding this appeal the Tribunal's jurisdiction is founded on section 148 (1) (f) which provides that an appeal lies to the Tribunal,

> "subject to section 41 (6),[20] against a decision of a responsible authority on an application for a licence under section 41, or on any other application to which section 41 applies, by the applicant or by any other person who has timeously lodged a written objection against the application."

12. Firstly, the respondents contested the standing of the appellants to lodge the appeal and after hearing arguments from all the parties we ruled *ex tempore* that

[16] PAJA section 3(2)(b)(i).
[17] PAJA section 6(2)(f)(ii).
[18] PAJA section 6(2)(e)(iii).
[19] PAJA section 6(2)(e)(vi).
[20] Section 41 (6) of the NWA provides that (6) "Notwithstanding the provisions of section 148, any applicant for a water use licence *arising out of the integration process contemplated in subsection (5)*, who is aggrieved by a decision of the responsible authority, may lodge an appeal to the Minister against the decision." (emphasis added).

the appellant had standing.[21] In particular we reiterate our finding that the appellant satisfied the requirements of section 148(1)(f) read with section 41 of the NWA. We found that the appellant lodged an objection timeously by its email of 23 January 2017, as required by the legislation. Section 41 allows the responsible authority to direct the applicant, in this case the second respondent, to call for objections which was done, and that call was extended, and it was as a response to that directive that the appellant lodged its objection. Even though the objection is premised on a peer review report, we noted that the covering email specifically highlighted that their objection to the water licence was based on the findings of that peer review.

13. Therefore, read together, the email of 23 January 2017 and the report constitute an objection that raises some opposition or disagreement with the reports based on which the Minister or the responsible authority intended to consider the water use license application. Therefore, our finding is that the appellants lodged a timeous written objection for the purposes of section 148(1)(f).

14. Secondly, the second respondent argued *in limine* that the Tribunal lacked jurisdiction in view of section 41(6) of the NWA which requires appeals arising from integrated licence application processes to be directed to the Minister. Upon hearing arguments on this point, we ruled that the WUL application did not arise out of an integrated process. The integration process contemplated in section 41(5) is a process where the Minister has aligned and integrated the consideration of the water use licence with *either* an application in terms of the Minerals and Petroleum Resources Development Act (MPRDA) 28 of 2002, *or* an application for environmental authorisation in terms of the National Environmental Management Act 107 of 1998 (the NEMA).

15. We conclude that based on the documents and the record before the Tribunal the environment authorisation for the Khanyisa project was issued on 31 October 2013, four years prior to the application for the integrated water use licence and the two processes were procedurally not integrated as envisioned in section 41(5) of the NWA. No submissions were made to demonstrate that the Minister aligned

[21] Record of Proceedings, page 91-93.

and integrated the two processes at any time. The second respondent's WUL application was not an integrated process and, therefore, it is not subject to the requirement that the appeal must be lodged with the Minister.

16. The third preliminary point we wish to make at the outset is that the jurisdiction of the Tribunal is limited by the statute that establishes it. Therefore, the Tribunal or the responsible authority, for that matter, may not encroach on the jurisdiction of other government departments or other administrative agencies. Section 148 set out the issues that may be raised on appeal. We highlight this because as is apparent from the voluminous record in this appeal, several issues were brought before us that, although *prima facie* appear relevant in terms of section 27 (1) of the NWA,[22] are in fact beyond our jurisdiction. Neither the responsible authority under the NWA nor the Tribunal have any competence to decide whether South Africa should continue to authorise coal-fired power plants or whether the country needs more electricity generating capacity, and from what primary sources of energy.

17. To be specific, this Tribunal and the responsible authority cannot second guess decisions of the Departments of Minerals and Energy, Environmental Affairs, the National Energy Regulator of South Africa (NERSA)or a provincial authority.[23] Similarly, whether the second respondent will be able to meet the financial closure requirements under the CBIPP Programme or secure a Power Purchase Agreement (PPA),[24] how soon the transition away from coal to renewable energy should happen, and whether there is value for money under the Electricity Regulations on New Generation Capacity are beyond the remit of the Tribunal, and in that sense irrelevant.[25] Energy and climate policy decisions and regulatory decisions specific to those issues, although generally relevant to water issues affecting the country, have little to do with an appeal against the granting of a WUL for a fluidised coal-bed power plant.

[22] Section 27 (1) provides that "In issuing a general authorisation or licence a responsible authority must take into account all relevant factors, including…"
[23] See submissions from page 92-103, 110-114, 201-228, Appeal Record and the documents, reports and policy documents submitted and referenced to substantiate those submissions.
[24] See Appellant's Heads of Argument, page 27 (para76-81).
[25] Appeal Record, page 111 fn393.

18. Huge amounts of information were submitted seeking to dispute and use the decisions of other government departments or agencies to bolster an appeal that should narrowly concern itself with whether the responsible authority complied with the legal prescripts when it issued the WUL. An illustrative example of such superfluous reports includes the following;

    a) "Eskom's financial crises and the viability of coal fired power in South Africa" (the **"Meridian Report"** of November 2017);

    b) "An assessment of new coal plants in South Africa's electricity future: The cost, emissions and supply security implications of the coal IPP [Independent Power Producer] programme· (the **"Coal IPP Report**" of May 2018);

    c) Institute for Sustainable Development and International Relations ("IDDRI") and Climate Strategies, "Coal transitions in South Africa-Understanding the implications of a 2 degree Celsius compatible coal phase-out plan for South Africa· (the "**Coal Transitions Report**" of September 2018);

    d) Climate Transparency, titled the "Brown to Green Report 2018" (the "**Brown to Green Report**" November 2018);

    e) "Least cost integrated resource planning and cost optimal climate change mitigation policy: Alternatives for the South African electricity system (the "**Alternate IRP1 report**" February 2019).[26]

    These reports are introduced by the affidavit of JAS Burton, raise serious issues and may be of interest to NERSA, the Department of Energy or Eskom, but are quite extraneous to the issues which the Water Tribunal is mandated to adjudicate in terms of section 148 of the NWA. Therefore, this omnibus approach to appeals to the Tribunal is unnecessary and discouraged. It burdens all the parties having to pour over documents that are immaterial to the appeal thereby increasing the costs of every party involved.[27]

19. By its nature the Khanyisa Project requires several permits and licences and any interested and affected party should properly address any appeals against such other permits to the appropriate appeal authorities provided in the respective legislation.

[26] Appeal Record, page 869-908.
[27] See for example the affidavit and reports by JAS Burton page 875- Appeal Record comprising of the following reports.

20. In the same light, while we acknowledge that the effects of climate change are a relevant factor to be considered under section 27(1) of the NWA; whether or not there was or ought to have been a climate change assessment[28] is a matter that the environmental competent authority should consider in terms of the section 24O(1) of the NEMA before issuing an environmental authorisation,[29] and not necessarily a matter for decision by the Water Tribunal. This is especially the case because an application for environmental authorisation must invariably precede and be submitted with an WUL application. Any activity that requires a water use licence is subject to the Environmental Impact Assessment Regulations.[30] Making a climate change assessment a general requirement for water use license applications can result in some absurdities.[31] The first respondent and the Tribunal are bound to consider the environmental authorisation, which should include consideration of climate change impacts. However, if the appropriate assessment processes have not been followed, then the appeal against the environmental authorisation is the correct platform to address the issue of a climate change impact assessment.

Nature of Proceedings

21. The parties in this appeal also engaged with the issue of the nature of the hearing and proceeding before the Tribunal. While this was raised as part of the challenge to jurisdiction, it became a broader issue in view of the different procedures proposed by the parties. At the outset the appellant indicated that it did not wish to call any witness to testify at the hearing and further that it would build its case on the expert reports and papers filed of record.[32] On the contrary, the second

[28] The court in *Earthlife Africa Johannesburg v Minister of Environmental Affairs and others* [2017] 2 All SA 519 (GP), para 6 stated that such as assessment requires "A climate change impact assessment in relation to the construction of a coal fire power station ordinarily would comprise an assessment of: (i) the extent to which a proposed coalfired power station will contribute to climate change over its lifetime, by quantifying its GHG emissions during construction, operation and decommissioning; (ii) the resilience of the coalfired power station to climate change, taking into account how climate change will impact on its operation, through factors such as rising temperatures, diminishing water supply, and extreme weather patterns; and (iii) how these impacts may be avoided, mitigated, or remedied."

[29] *Earthlife Africa Johannesburg v Minister of Environmental Affairs and* others [2017] 2 All SA 519 (GP), para 78-79.

[30] Activity no 1 and 6 of Environmental Impact Assessment Regulations Listing Notice 2 of 2014, GN R984 in *GG* 38282 of 4 December 2014, as amended by GN 325 in *GG* 40772 of 7 April 2017.

[31] Appeal Record, page 466-467.

[32] Appeal Record pages 579D, 579S (Letters from Appellant's attorneys).

respondent indicated that it wished and intended to lead oral evidence at the hearing including expert evidence. After some exchanges and there being no agreement among the parties, we directed that the Water Tribunal Rules allow each party the right and opportunity to present their case. Rule 7 of the Tribunal Rules provides that,

> "(1) Appeals and applications to the Tribunal take the form of a rehearing.
>
> (2) The Tribunal may receive written and/or oral evidence, and must give the Appellant or Applicant and every party opposing the appeal or application an opportunity to present their case and to question any person who testified at the hearing.
>
> (3) The Chairperson of the Tribunal must allow the Appellant or Applicant to present his or her case, first, where after any affected party must be afforded an opportunity to present their case, and thereafter the Appellant or Applicant must be afforded an opportunity to respond to any information or representations forthcoming from any affected person."[33]

22. Rule 7(1) gives the Tribunal wide appeal powers which include dealing with procedural and substantive issues that may be raised by an appellant. A wide appeal is akin to a review and appeal rolled into one with permission to admit new evidence. Rule 7(2) allows the Tribunal to receive both written and oral evidence, allowing all parties to engage with the evidence of the other parties. This injunction implies that one party cannot force other parties to proceed by way of papers only or prevent other parties from testing any oral or written evidence submitted to the Tribunal. This is crucial where, as in most Tribunal hearings, expert evidence is led. Rule 7 and its provisions are all subject to the normal rules of evidence including rules of procedure where a party seeks to lead expert evidence.

23. The Tribunal steps into the shoes of the responsible authority and considers, not only the decision appealed against, but also any new evidence or information presented by the parties to arrive at a new decision which replaces the responsible authority's decision. We have previously ruled on numerous occasions that a hearing *de novo* does not necessarily imply that the decision appealed against becomes completely irrelevant.[34] An appeal to the Tribunal is not merely a second

[33] Water Tribunal Rules GN 926 in GG 28060 of 23 September 2005.

chance to a dissatisfied party.

24. In this appeal the appellant submitted reports by experts (expert evidence) on several aspects of the appeal. These were as follows:

    a) Burton, J - Affidavit dated 26 September 2019, a CV and executive summaries from various reports (Coal IPP; Coal Transition, Brown to Green, and Alternative IRP);[35]

    b) Cloete, B and Tokelo, S (DNA Economics, Pretoria) - Affidavit and report entitled "Review of the Socio- Economic Impact of Khanyisa coal fired power station" dated 23 September 2019 and 25 September 2019;[36]

    c) Hansen, E (West Virginia, USA) – Affidavit, dated 21 June 2019;[37]

    d) Chambers, D (Centre for Science in Public Participation, USA)– Affidavit, dated 27 June 2019 and expert opinion entitled "Professional Opinion on the site selection for the Ash Disposal Site for the proposed Khanyisa Power Station Project, Emalahleni, Mpumalanga, South Africa";[38]

    e) Mills, M (Cape Town, South Africa) – report entitled, "Critical review of the Khanyisa WUL from a water quality perspective", dated 20 September 2018;[39]

    f) Ewart-Smith, J (Cape Town, South Africa) – Report entitled "Review of Specialist Wetland Reports Associated with the Proposed ACWA Power Khanyisa IPP Project, Mpumalanga Province, South Africa", dated 26 September 2019;[40] and

    g) Udall, B (Colorado Water Center (formerly Colorado Water Institute), Colorado State University, USA. – Affidavit, CV and report entitled ("21st Century Climate Change Impacts on Olifants River Flows, South Africa", dated 25 April).[41]

[35] Appeal Record, page 869 – 908 Appeal Record.
[36] Appeal Record, page 993 – 1053, by DNA Economics based in Pretoria.
[37] Appeal Record, page 1057 – 1059.
[38] Appeal Record, page 1060 – 1062.
[39] Appeal Record, page 1074 - 1115 noting that "Mills Water was requested by the Centre for Environmental Rights to undertake a critical review of the water use licence issued to ACWA Power Khanyisa Thermal Power Station (RF) Pty Ltd on the 7 December 2017. "The review considers the WUL application and relevant supporting documents in terms of the aspects relating to water quality, especially considering whether the potential for surface water and groundwater impact from the ash dump has been adequately considered and characterized." Appeal Record at page 1087.
[40] Appeal Record, page 1116 - 1154, stating at 1135 that "The purpose of this short report is to provide the output of a critical evaluation of the impacts to freshwater ecosystems of the Khanyisa Project, based on a review and interpretation of specialist wetland studies undertaken and information provided in the Water Use Licence Application (WULA) for approval by DWS for the project."
[41] Appeal Record, pages 333 - 370; 1155 - 1161

The appellant did not call any of its seven expert witnesses whose reports were submitted in support of the appeal.

25. Among other reasons, the appellant's counsel submitted that "We have elected to follow more of an application proceeding because of the nature of our expert witnesses and because of the limited resources of the appellant as an NGO and that is allowed in terms of Rule 7."[42] Counsel further emphasised, when explaining the economic review of the Khanyisa project that,

> "So there were extensive expert assessments of that. We don't have expert testimony, but we are allowed to provide them on paper, and the position of the appellant demands it, because it is an NGO. It can't afford to fly all its experts up to testify but it has got extensive expert reports to counter it."[43]

It is important to note at the outset that the Tribunal pointed out to the appellants that some of its expert witness, based on the reports, were based in Pretoria where the hearings took place, but they were still not called to testify.[44] The only reason provided for the non-availability of all experts was the appellant's penurious position.

26. The first respondent also did not call any witnesses and relied on the official documents produced and submitted by the first respondent, as the responsible authority. The first respondent took the position that, as respondents they were only under obligation to lead evidence to refute the evidence, if any, led by the appellant. To the extent that the appellant chose not to lead any oral evidence and relied on expert reports, the first respondent maintained the position that there was in fact no evidence to support the appeal. We view this as being against the proceedings of the Tribunal which are not necessarily adversarial and indeed any is bound to provide the Tribunal with relevant evidence documents and information to resolve an appeal fairly.

27. The second respondent, in addition to reports that it submitted as part of its application for a WUL, submitted an updated expert report entitled "Khanyisa Ash Disposal Facility: Inherent Fatal Flaw Screening Report" by Mott MacDonald (8

[42] Record of Proceedings, page 19.
[43] Record of Proceedings, page 118.
[44] Record of Proceedings, page 437.

October 2019)[45] to which Dr Mawire testified at the hearing.[46] Evidence was also led from Mr. Singh, the Business Development Executive for the second respondent. His evidence was not of an expert nature but sought to give a general overview of the Khanyisa project, its location, key components, scope and design. This approach was consistent with the nature of a Tribunal hearing where all the parties should submit all relevant evidence

28. While a party can lead expert evidence or opinion, there are established guidelines on how such evidence should be led and treated by the trier of fact, even if the Tribunal is not a court of law. Counsel for parties assisted the Tribunal by highlighting the cases of *R v Jacobs*,[47] *Bee v The Road Accident Fund*[48] and *Holthauzen v Roodt*[49] in which the court laid out the following principles applicable to the admissibility of expert opinion:

> "Firstly, the witness must be called to give evidence on matters calling for specialised skill or knowledge. It is therefore necessary for this Court to determine whether the subject of the enquiry does raise issues calling for specialised skill or knowledge.
>
> Second, we are accustomed to receiving the evidence of psychologists and psychiatrists, particularly in our criminal courts. However, we should not elevate the expertise of the witness to such heights that we lose sight of the Court's own capabilities and responsibilities.
>
> Third, is that the witness must be a qualified expert. It is for the Judge to determine whether the witness has undergone a course of special study or has experience or skill as will render him or her an expert in a particular subject.
>
> Fourth, the facts upon which the expert opinion is based must be proved by admissible evidence. These facts are either within the personal knowledge of the expert or on the basis of facts proved by others… Since the testimony of an expert is likely to carry more weight; it is thus understandable that higher standards of accuracy and objectivity should be required.
>
> Fifth, the guidance offered by the expert must be sufficiently relevant to the matter in issue which is to be determined by the Court.

[45] Appeal Record, page 1163-1211. This report was supplement by a presentation entitled "Concept Design to mitigate against groundwater pollution" **(Exhibit 3)** presented by Dr Mawire at the hearing.
[46] The nature of the expert's evidence was summarized in the second respondent's *Factual Submission as Directive of the Water Tribunal* dated 13 September 2019 Appeal Record page 544-558. This summary was circulated to all the parties in preparation of the hearing scheduled for 22-24 October 2019.
[47] *Rex v Jacobs* 1940 TPD 142, para 14-17.
[48] *Bee v The Road Accident Fund* 2018 (4) SA 366 (SCA), para 28.
[49] *Holthauzen v Roodt* 1997 (4) SA 766 (W) at 772C/D-773C.

> Finally, opinion evidence must not usurp the function of the Court. The witness is not permitted to give opinion on the legal or the general merits of the case. The evidence of the opinion of the expert should not be proffered on the ultimate issue. The expert must not be asked or answer questions which the Court has to decide."[50]

29. In *Bee v The Road Accident Fund* the court emphasized that:

> "It is trite that an expert witness is required to assist the court and not to usurp the function of the court. Expert witnesses are required *to lay a factual basis* for their conclusions and *explain their reasoning* to the court."[51] (our emphasis).

30. Therefore, while the Tribunal is not a court, these rules of evidence bind us when we are dealing with expert evidence to enable us to fully grapple with the issues and conduct the proceedings in a manner that is fair to all the parties. There is no doubt that the several of issues raised in this appeal are matters on which expert opinion is necessary. Similarly, based on the *curriculum vitae* provided, and the absence of questions to controvert the qualifications and experience of the expert witnesses, we do not doubt that all the expert witnesses who submitted reports or testified are indeed qualified experts. What remains to be decided is the extent to which each piece of evidence submitted should considered and the probative value of such evidence in relation to the grounds of appeal. We will deal with the evidence of experts where relevant when we consider the grounds of appeal below.

31. Having provided the background, context, and preliminary issues, we now consider the grounds of appeal raised by the appellant. We consider whether the parties have presented information that demonstrates that the first respondent made a decision that was not consistent with the law. Further we consider the application itself and any new admissible evidence presented to us.

32. The fundamental issues to be decided in this appeal are the following:

    a) Whether the Khanyisa Project will cause unacceptable water pollution in violation of the right to an environment not harmful to health and well-being;

    b) Whether first respondent violated section 19 of the NWA and section 28 of

[50] *Holthauzen v Roodt* 1997 (4) SA 766 (W) at 772C/D-773C.
[51] *Bee v The Road Accident Fund* 2018 (4) SA 366 (SCA) para 22.

the NEMA in failing to exercise the duty of care. This includes whether the responsible authority failed in its duties as a public trustee of the nation's water resources.

c) Whether or not the first respondent contravened the principles in section 2 of the NEMA, specifically the precautionary principle, the polluter pays principle, principle of public participation and general sustainable development principles – in making the decision to grant a WUL to the second respondent.

d) Whether the first respondent failed to take proper account of the relevant factors as required in terms of section 27(1) of the NWA, including whether the first respondent took into account irrelevant factors.

e) Whether in making the decision the first respondent failed to act in a procedurally fair manner as required in terms of the Promotion of Administrative Justice Act (PAJA) by not affording the appellant meaningful participation in the decision-making process. Included under this issue is whether the first respondent acted unreasonably, irrationally and/or arbitrarily contrary to section 6 of the PAJA.

The approach we took is to deal with the grounds of appeal *seriatim* while concurrently also addressing the above issues as they become relevant for determination within any ground of appeal.

Analysis of the Grounds of Appeal and Evidence

The first respondent's decision to issue the WUL was taken in violation of the constitutional rights to an environment not harmful to health or wellbeing, dignity and equality.

33. In articulating this ground of appeal the appellant argued that the first respondent's decision to issue the WUL for the Khanyisa Project violates the right enshrined in section 9, 10 and 24 of the Constitution of South Africa. The appellant states that the Khanyisa Project will cause unacceptable pollution of water resources which violates section 19 of the NWA and section 28 of the NEMA, both provisions create

a duty of care.[52] In elaborating this ground of appeal the appellant submitted that the water uses authorised in the WUL will permit the second respondent to undertake activities that will lead to significant pollution of surface and groundwater. The water pollution is particularly expected to be caused by the Coal Ash Disposal facility based on its location and design. It is stated that the siting of the Coal Ash Disposal Facility is in an environmentally sensitive area which is in close proximity to the Olifants River which feeds into the Witbank Dam. Once discard coal has been burnt in the power plant a residue results which will be disposed of in a facility that is designed much like a landfill, although the second respondent's expert preferred to call it a land raise because in fact the facility is mostly raised above ground level.

34. This ground of appeal revolves around the technical design of the Coal Ash Disposal Facility and whether the design not only meets the regulatory requirements, but also if it is capable of mitigating the leaching of polluted water from the facility into the nearby water bodies. We emphasise that being part of a power plant the facility has been authorised by the relevant authorities. The only issue for us is whether, as approved, the design will contain and mitigate any potential water pollution.

35. The Coal Ash Disposal Facility is proposed to be located on a rehabilitated old open cast mine, backfilled over several years. The application for a WUL was supported by expert reports that were subjected to analysis by the first respondent's internal specialists. The various reports so considered are noted in the ROR being the;

    a) Integrated Water and Waste Management Plan by Aurecon South Africa (Ply) Ltd dated 2 November 2017.
    b) Geohydrological Evaluation Report by Aurecon South Africa (Pty) Ltd dated August 2011.
    c) Conceptual Stormwater Management Plan for Ash Yard by China Chengda Engineering Engineers dated September 2011; and
    d) Civil designs and civil design report by Redco dated August 2015.[53]

[52] Appeal Record, page 88-90.
[53] Tribunal Record, page 37 (ROR).

36. The core of the decision by the first respondent is that having reviewed these expert reports, and based on the ROR "The water use will not have severe negative impacts on the resource, the environment and other users as no contaminated effluents will be disposed into the environment", and further that, "The developer is committed to adhering to the licence conditions and to implement monitoring and management measures to minimise any potential pollution from the site."[54] It further stated that "the applicant has determined the potential impacts and mitigation measures for avoidance or minimisation of impacts on the water resources."[55]

37. The Aurecon Geohydrological Report notes that the modelling results show that:

> "It is interesting to note that the pollutants from all ash dams, and even the power plant site, will eventually end up in the south-eastern opencast, designated 2A at this stage. This opencast is directly upstream of the Olifants River and unless mitigated, will seep into the river as either surface or base flow. As the Olifants River feeds directly into the Witbank Dam, the impact would thus be environmentally unacceptable."[56]

38. This finding however is qualified in the same report where it states that

> "As previously stated (Section 10), *a worst case scenario has been modelled as if the ash dams might be leaking to the aquifer below*. In reality, this will be mitigated by lining the ash dam, and although this scenario is unlikely it is also a possibility to reckon with."[57] (our emphasis).

39. Therefore, the modelling of plume movement and transport over five, ten and twenty years[58] assumes that there are no mitigation measures to prevent leachate from escaping from the Coal Ash Disposal Facility at Site 3 (proposed site). This is important and consistent with the final conclusion of the Aurecon Report that

> "Based on the field work, interpretation of available and newly acquired data and results of the numerical model *it can be concluded that the proposed power station and associated ash dam will have a "low to very low" impact* on the investigated geohydrological environment, *given that sound environmental infrastructure and management procedures are put in place as discussed* in the Project Concept Report by Mott MacDonald Consultants. This includes *liners, leachate containment*, leachate treatment, etc. Thus, *no pollution should emerge from the dams if the system if everything operates to design*

[54] Tribunal Record, page 74.
[55] Tribunal Record, page 76.
[56] Tribunal Record, page 602.
[57] Tribunal Record, page 595.
[58] Tribunal Record, page 597-598.

> *parameters*. However, there is always the possibility of a leaking liner and that the pollutants from the ash dam could reach the aquifer below."[59] (our emphasis).

It is thus clear that the design and integrity of the liner and leachate prevention measures are critical.

40. This report's findings and conclusions are based on a mathematical modelling exercise that is underpinned by several assumptions and parameters that may not reflect reality.[60] Similarly, it is apparent from the Aurecon Report that whether or not the proposed site is undermined or has underground mine voids arises from the manner in which boundaries for the modelling exercise were determined.[61] Thus the report states that,

> "Boundaries for the numerical model have to be chosen where the groundwater level and/or groundwater flow is known. The most obvious locations are zero flow conditions at groundwater divides, while groundwater levels are known at prominent perennial dams, streams and rivers."[62]

41. The modelling diagrams showed the presence of underground mines in the vicinity of the site of both the power plant and the Ash Disposal Facility.[63] However, borehole logs on record demonstrated that there may be no underground mine voids on the proposed site of the Ash Disposal Facility.[64] However, there is a coal seam which lies eighty (80) to ninety (90) metres underground.[65] Possibly also there may be underground coal mines adjacent to the site but not entirely under it.[66]

42. What is decisive, as far as the potential water pollution from the Coal Ash Disposal Facility is concerned, is the design of the liner of the facility as well as the findings

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[59] Tribunal Record, page 617 (Aurecon pg. 71)
[60] See Tribunal Record, page 584 ("Potential groundwater environmental impacts from all these facilities will be addressed in the modelling exercise, though the current choice for the Ash Dam 3 location will receive most attention."
[61] Tribunal Record, page 588 ("For this modelling exercise, all hydraulic aquifer parameters were estimated, rather than calibrated as usual. The reason for this is that the water levels in the area on which the ash dam is to be constructed, is highly disturbed by active opencast and underground mining."
[62] Tribunal Record, page 587.
[63] Tribunal Record, page 590.
[64] Tribunal Record, 661-669 (Aerocon Report); see also Appeal Record page 1182 (Inherent Fatal Flaw Screening Report, October 2019.)
[65] Record of Proceedings, page 278, 281 (Dr Mawire testified that it is unthinkable for any engineer to recommend the site if there is a coal seam lying just below the surface of the Coal Ash Disposal Facility.)
[66] This is consistent with the indication by appellant's expert Mr. Hansen.

of the analysis of the geohydrology and geology of the site. These latter determine the susceptibility of the site to subsidence or other natural settlement that could weaken the liner system. The *Thermal Coal Ash Disposal Feasibility Study* compiled by Mott MacDonald in 2011[67] indicated that a liner was required by the Minimum Requirements for Waste.[68] In terms of these regulations a landfill to handle hazardous waste was supposed to meet the following minima,

> "_ 300mm Leachate Collection Layer;
> _ 150mm Soil Protection Layer (or Protective Geotextile);
> _ 1 No. layer of 2mm FML/HDPE Geomembrane (double textured);
> _ 1 No. layer of Geosynthetic Clay Liner (GCL);
> _ 100mm thick silt/sand support layer;
> _ 1 No. layer of Protective Geotextile (Geotextile Layer);
> _ 150mm Leakage Detection and Collection Layer;
> _ 1 No. layer of Geosynthetic Clay Liner (GCL);
> _ 150mm Base Preparation Layer; and
> _ In situ Soil (OCCS backfill material). "[69]

43. At this stage the design of the Coal Ash Disposal Facility is a mere concept and no work has been done on site.[70] The evidence presented by the second respondent shows that after the 2011 feasibility study a further conceptual design was done to review and update the 2011 concept design to comply with new regulations for the design of waste disposal in landfills promulgated in terms of the National Environmental Management: Waste Act.[71] The 2013 regulations[72] provided for new classification of waste, with the result that second respondent argued that ash was reclassified from hazardous waste (H:H) to Class C (Type 3) waste.[73] In accordance with the 2013 regulations the proposed landfill should meet the new liner requirements. These are that it must have a filter-type geotextile, then 100mm silty sand layer or geotextile of equivalent performance, a 1,5mm HDPE geomembrane liner, followed by a Geo-composite Clay Liner (GCL) (with 400

[67] "Thermal Coal Ash Disposal Feasibility Study" (Mott MacDonald, 2011), as read with the "Thermal Coal Ash Disposal Liner Concept Design Report" (Mott Macdonald, 2010), these reports are both superseded by the October 2019 report which Mawire testified to at the hearing.
[68] Appeal Record, page 1459; Department of Water Affairs and Forestry, Minimum requirements for the handling, classification and disposal of hazardous waste (Second Edition), 2006. (Minimum Requirements for Waste.)
[69] Appeal Record, page 1459; Department of Water Affairs and Forestry, Minimum requirements for the handling, classification and disposal of hazardous waste (Second Edition), 2006. (Minimum Requirements for Waste.)
[70] See Appeal Record, page 1381.
[71] National Environmental Management: Waste Act 59 of 2008 (Waste Classification and Management Regulations) GNR636 of 23 August 2013, Government Gazette 36784, read with the National Norms and Standards for the Assessment of Waste for Landfill Disposal GNR635 of 23 August 2013, Government Gazette 36784.
[72] Appeal Record, page 1388. The different liner requirements are graphically illustrated on the same page.
[73] Second Respondent Closing Submissions para 39-40.

years life) and at the very bottom a 150mm Base Preparation Layer supporting the underdrainage and monitoring system.[74] Dr Mawire spent considerable time explaining the composition and strength of the HDPE geomembrane, and also how this new design is unlikely to fail from an engineering perspective.[75] Counsel for appellant thoroughly cross-examined the Dr Mawire on the nature of this new design and the co-relation between the design and the chemical composition or qualities of the ash being disposed of. Dr Mawire's evidence in this respect was solid and consistent with a concept design developed in line with the 2013 regulations. No expert evidence was put to Dr Mawire to demonstrate that the design and liner were prone to failure.

44. The second respondent led expert evidence which demonstrated that at this conceptual stage the design of the Ash Disposal Facility with regard to the liner meets the legal minimum requirements. Indeed, the appellant's expectation that the second respondent should have done "geochemical testing of the ash waste"[76] from a CFB technology is impractical and impossible given that the Khanyisa Project is the first CFB plant in South Africa. If one links this to the conditional conclusion in the Aurecon Report, it is clear that if the liner design meets minimum legal requirements then the possibility of water pollution from leachate is mitigated. It may not be entirely eliminated, but South African law does not require pollution to be entirely eliminated. Both section 24 of the Constitution, section 2 of the NEMA and the NWA are concerned with significant pollution and all require a project proponent to minimize or mitigate such pollution. It is quite possible that after the 400 years[77] the liner may naturally fail.

45. The appellant submitted three expert reports by Dr Mills, Mr Hansen, and Dr Chambers that sought to controvert the methods, parameters, and findings of the Aurecon Geohydrological Report and other documents relied on by the first respondent.

46. In his report Dr Mills questioned the failure by both Aurecon and Mott Macdonald

[74] Ibid; Appeal Record, page 547-548; 1193; 1197-1198; see also Record of Proceedings, page 233- 243; 330-352.
[75] Record of Proceedings, page 233-243, and Appeal Record, page 1387-1388 (**Exhibit 3**).
[76] Appellant's Heads of Argument, page 37 para 101.5.
[77] Record of Proceedings, page 234.

(2019 Fatal Flaw Analysis Report) to use "site-specific measured geotechnical parameters."[78] Dr Mills further criticised the use of assumptions for the modelling in both reports. Dr Mills states that

> "It is clear from the report that several assumptions have been made pertaining to the extent of mining/underground mining, the composition of the material underlying the facility, the waste material classification, the composition of the cover material, and the effect of groundwater recovery."[79]

What becomes immediately apparent is that both review reports by Dr Mills are based purely on the reports submitted by the second respondent to the first respondent and other WUL supporting documents. Any errors or incorrect findings in the modelling conducted by Aurecon therefore equally affects the correctness of the experts' findings. Several aspects deemed assumptions became possibilities after Dr Mawire's testimony.

47. The above conclusions are fundamentally incorrect and were controverted by Dr Mawire.[80] At the end of the hearing it was apparent that the existence of underground mine voids is unlikely. In a rehabilitated mine site, the underlying geology is much easier to determine. The composition of the material underlying the facility is clear from the borehole logs and analysis thereof, the waste material classification (as required by South African waste disposal regulations) is also clear. These are not assumptions as argued by Dr Mills. In addition Dr Mills references the Regulations Regarding the Planning and Management of Residue Stockpiles and Residue Deposits (DEA, 2015) which are irrelevant and inapplicable to the ash disposal facility (it is not a stockpile or residue deposit.)[81] Eventually, Dr Mawire's evidence regarding the issues on which Dr Mills submitted an expert report and in which he claims uncertainty[82] went unchallenged and should be preferred over an expert report which was not explained or tested in evidence.

48. Mr Hansen's report raised important questions that require answers. His objective was to "identify and evaluate some of the areas of concern regarding water

[78] Appeal Record page 1218.
[79] Appeal Record page 1218
[80] Appeal Record, page 1172 *et seq* (Inherent Fatal Flaw Screening Report.)
[81] Appeal Record, page 1219.
[82] Appeal Record, page 1223.

resources, pre-existing environmental contamination, and the contamination that may or will result from construction and operation of the Khanyisa facility."[83] His report presented general information on the effects of coal combustion residues (CCRs) in some of the United States of American sites.[84] The information is of little use to the Tribunal coming from an expert who was supposed to provide an opinion on water pollution from the Khanyisa Project. At the end his report does not address the real issue of whether or not the concept design and proposed liner of the Coal Ash Disposal Facility will fail and lead to water pollution on site. His opinion remains subject to "if" the liner fails.

49. Furthermore, Mr Hansen's report is based on the Khanyisa Project being a 405MW 25 year plant.[85] Like Dr Chambers, Mr Hansen found that "Because the coal ash dump is proposed to be located on top of an old opencast mine and underground mine voids, *the risks of water pollution are very high should toxic metal from the ash dump leach out*:…"[86] (emphasis added). This conclusion and that of Dr's Mills and Chambers on the issue of the integrity of the liner design is also subject to *"if"* or *"should"* the liner fail there will be water pollution. This supposition was sufficiently dealt in evidence by Dr Mawire.

50. Dr Chambers for the appellants also prepared an expert report to dispute the reports submitted by the second respondent and relied on by the first respondent. In his report Dr Chambers stated that;

> "the above mentioned opinion and the expert analysis expressed therein, is as a result of a desktop study based on an analysis of the Khanyisa project's Water Use Licence (WUL) and application, as well as other related information on the site selection for the Ash Disposal Site for the proposed Khanyisa Power Station Project available in the (Final) Environmental & Social Impact Assessment Report for the Khanyisa Coal Fired Power Station, Volume 1 of 4 (Aurecon 2012); Annexure H, of the EIR, Issues & Response Report (Annexure· H 2012); and, the Khanyisa Power Station Project: EIA, geohydrological Evaluation for the Environmental Impact Assessment (Aurecon 2011) (collectively "The Specialist Reports")."[87]

51. Dr Chamber's opinion is basically subject to whether or not the liner design and

[83] Appeal Record, page 376.
[84] Appeal Record, page 378 - 383.
[85] Appeal Record, page 376.
[86] Appeal Record, page 376.
[87] Appeal Record, page 1061.

the mitigation measures proposed by the second respondent will hold.[88]

> "My main findings in the above opinion, based on an analysis of the specialist reports include that:
>
> 9.1 There is ***uncertainty*** whether or not part of the area that encompasses site 3 (being the site for the proposed ash dump) is still underlain by underground workings;
>
> 9.2 ***it is common*** in underground coal mines for mine collapse to cause surface subsidence;
>
> 9.3 there is no question that collapse of remaining underground workings ***could cause liner rupture*** to happen and damage to the associated piping system, which will allow contaminated water to enter the underground workings, leading to further groundwater pollution;
>
> 9.4 no mitigation measures would sufficiently protect water resources from pollution ***should*** site 3 be underlain by underground workings;
>
> 9.5 ***unless it can conclusively be determined*** that there is no possibility of underground workings remaining, Site 3 cannot be used for ash disposal;"[89] (our emphasis).

This summarised opinion demonstrates that, beyond suppositions, there is no material expert evidence provided by Dr Chambers to controvert the evidence of Dr Mawire with regard to the failure of the lining due to settlement of the underlying fill.

52. The main report itself[90] shows a cursory desktop review of the reports reviewed. In the language of Satchwell J in *Holthauzen* this is the kind of "Evidence of opinion on matters which do not call for expertise…because it does not help the Court."[91] Furthermore the court in *Bee* correctly noted that "Expert witnesses are required to lay a factual basis for their conclusions and explain their reasoning to the court."[92] There is no factual basis provided by Dr Chambers to explain his non-committal opinion. Therefore, his evidence is of no probative value in this appeal.

53. While the two reports by Dr Mills are widely referenced,[93] unfortunately the facts upon which his opinion is based have not been proffered and he was not available for the respondents to test his expert opinion. Therefore, where his evidence

[88] Appeal Record, page 1061.
[89] Appeal Record, page 1061.
[90] Appeal Record, page 415 to 418.
[91] *Holtzhauzen v Roodt* 1997 (4) SA 766 (W) page 772C.
[92] *Bee v Road Accident Fund* 2018 (4) SA 366 (SCA), para 52.
[93] Appellant's Heads of Argument page 33-34.

conflicts with that of Mr Singh and Dr Mawire the latter are to be believed. The claim by the appellant that Dr Chamber's report is extensively "referenced and substantiated" is surprising given that there are only five listed references to Dr Chamber's report, and these are references to the very Aurecon Geohydrological Report that he was reviewing. There is no reference to any other authority or source on the basis of which his opinion is formulated. None of the relevant appellant's experts, in their reports, present facts on the basis of which it could be concluded that there is a probability that the HDPE geotextile and geomembrane in the liner will fail.

54. In making the claim that the potential water pollution from the Khanyisa project violates section 10 and 9 of the Constitution, the appellant makes a bald claim. The information and reports submitted only demonstrate how section 24 rights could be violated, "if" the landfill liner fails and "if" the mitigation measures are not implemented. However, there is nothing on record to show how the first respondent's decision threatens the rights to dignity and equality in sections 10 and 9 of the Constitution.[94] There are some references to the social impacts of the Khanyisa project itself on the surrounding communities but, beyond that, no substantial information on how the dignity or equality of anyone is impacted.

55. Similarly, the submission that,

> "the Decision comprises a breach of the duties of care in terms of section 19 of the NWA to prevent pollution from an activity or situation that *"has caused or is likely to cause pollution of a water resource"* and section 28 of NEMA on every person who *"causes, has caused or may cause significant pollution or degradation of the environment [to] 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,"*[95]

is a general claim made with no information to demonstrate how these enforcement provisions become relevant when no activity has yet been undertaken at this stage.

[94] At page 90 (para 227 Grounds of Appeal) appellants submit that "As further substantiated below, the negative water and air pollution impacts arising out of the Khanyisa Project will also impact on the constitutional rights to dignity and equality of the nearby residents and downstream users who will be impacted by the pollution." No further submissions are made with regard to water pollution and dignity or equality. Any claims in relation to air pollution are irrelevant to an appeal against a WUL.

[95] Appeal Record, page 89-90 (para 226 Grounds of Appeal)

56. The decision being appealed against was made by the first respondent and we do not see how the first respondent is bound by section 19 of the NWA in exercising the lawful authority to consider a WUL application. Similarly, we do not see how the respondents have violated section 28 of the NEMA. As at the date of this appeal hearing, there were no activities carried out "which causes, has caused or is likely to cause pollution of a water resource,…"[96] or "…significant pollution or degradation of the environment.."[97] The conceptual designs and their approval *per se* cannot be regarded as breaches of section 19 of the NWA or section 28 of the NEMA.

57. On this first ground of appeal we therefore may find that the authorised water uses in relation to the Khanyisa Project will not necessarily lead to significant water pollution or environmental degradation that constitutes a violation of the right to an environment not harmful to health or well-being (section 24 of the Constitution). However, while the concept design of the Coal Ash Disposal Facility meets the minimum requirements of law, Dr Mawire alluded to the fact that groundwater rise may make the underlying backfill unstable but that this was very unlikely mainly because of the elevated nature of the site. The proposed mitigation measures are reasonable and would be sufficient should any leakage or unlikely underground water rise occur.

The Factors under Section 27 of the NWA as applied to Khanyisa should have resulted in the DG (Acting) denying the WUL.

58. The second ground appeal raised by the appellant is that the first respondent failed to consider all relevant factors and factors listed in section 27(1) of the NWA. The approach to be adopted when it comes to section 27(1) NWA was laid out in the case of *Makhanya NO and another v Goede Wellington Boerdery (Pty) Limited*.[98] The court emphasised that all the factors listed in section 27(1) must be considered, weighed and balanced by the decision-maker. No one factor is more important than the other factors. The listed factors are not exhaustive and there may very well be other relevant factors not listed in the section. Not all factors may

[96] Section 19 (1) NWA.
[97] Section 28(1) NEMA.
[98] *Makhanya NO and another v Goede Wellington Boerdery (Pty) Ltd* [2013]1 All SA 526 (SCA).

be relevant in each and every application. Similarly, as we noted above there may be factors that are relevant, but outside the competence or jurisdiction of the Tribunal. However, the court also cautioned that,

> "It is not for the courts to consider *whether the Tribunal's decision was the best decision in the circumstances*, and overstep the limits imposed on this Court by our constitutionally enshrined separation of powers doctrine. The court in fulfilling its judicial function is to enquire whether the Tribunal's decision struck a reasonable balance between all the factors set out in section 27(1)(b), and some not mentioned in the section, owing to its inclusive nature."[99] (our emphasis).

This approach which defers to the discretion of the responsible authority, as an administrative functionary, tasked with considering various factors and coming to a decision is crucial for good governance. As long as the responsible authority or Tribunal acts in good faith, arriving at a reasonable and rational decision, the decision cannot be faulted simply because it does not resonate with the appellant's preferred outcome.[100]

59. In this context an appeal alleging that "The Factors under Section 27 of the NWA as applied to Khanyisa should have resulted in the DG (Acting) denying the WUL" could be doing precisely what the court cautioned – suggesting that the decision of the responsible authority was not the best under the circumstance. The threshold is good faith – as in reasonableness and rationality. Nevertheless, we considered this ground and applied our minds to the factors in section 27 (1) afresh in the context of documents and reports available to the Tribunal.

60. Decision-making on a WUL application is a balancing exercise that goes beyond section 27(1) of the NWA. The responsible authority, and indeed the Tribunal, are bound by the Constitution,[101] the NEMA,[102] the PAJA and other relevant policies and strategies.[103] In addition, we are guided by the purposes stated in section 2 of

[99] *Makhanya NO and another v Goede Wellington Boerdery (Pty) Ltd* [2013]1 All SA 526 (SCA).
[100] See *Khanyisa Community Development Organisation v Director Development Management Region 2, Western Cape, Department of Local Government, Environmental Affairs and Development* [2020] 2 All SA 485 (WCC), para 47 -49, and authorities there cited.
[101] The rights in section 24, 27 and 33 of the Constitution are relevant.
[102] It was not disputed that the principles in section 2 of NEMA (principles of environmental management) were applicable to the decision to grant the WUL, the decision being made by an organ of state and having the potential to significantly affect the environment.
[103] Section 7 of the NWA require the National Water Resources Strategy (NWRS) to be considered.

the NWA and the duty of public trusteeship in section 3. All these require that a decision whether or not to grant a WUL must ensure that "the nation's water resources are protected, used, developed, conserved, managed and controlled in ways which" recognise these legislative imperatives. A key objective of the National Water Resources Strategy (NWRS) is, "[w]ater is efficiently and effectively managed for equitable and sustainable growth and development."[104]

We address these relevant factors below:

Section 27 (1)a): Existing lawful water uses.

61. The term "existing lawful water use" is a technical term defined in the NWA.[105] As a relevant consideration this factor requires the Tribunal and the responsible authority to consider the extent of an applicant's existing lawful water uses, if any. The factor is aimed at ensuring that, before further water uses are authorised, the responsible authority has a complete picture of what other water use rights the applicant for a WUL holds.

62. The appellant submits that the above interpretation adopted by the first and second respondent, and which the Tribunal also adopts, "is nonsensical because the applicant's existing lawful water uses require no further licensing or general authorisation under the NWA and, therefore, do not fall to be assessed under section 27 of this Act."[106] The appellant's submission does not make sense when one considers that it is clear in terms of the NWA what an "existing lawful water use" is and why section 27(1)(a) would require such to be taken into account. This factor also enables the responsible authority to determine if a WUL applicant has not been engaging in illegal or unauthorised water use and if it is equitable to allocate further uses.

[104] National Water Resources Strategy (NWRS)page 12. The three objectives of the NWRS are that "Water supports development and the elimination of poverty and inequality; Water contributes to the economy and job creation; and Water is protected, used, developed, conserved, managed and controlled sustainably and equitably."
[105] Section 32 Defines "existing lawful water use" as (1) An existing lawful water use means a water use – *(a)* which has taken place at any time during a period of two years immediately before the date of commencement of this Act and which – (i) was authorised by or under any law which was in force immediately before the date of commencement of this Act; (ii) is a stream flow reduction activity contemplated in section 36 (1); or (iii) is a controlled activity contemplated in section 37 (1); or *(b)* which has been declared an existing lawful water use under section 33."
[106] Appeal Record, page 91.

63. The interpretation urged by the appellant may make section 27 (1)(f) ambiguous. That section speaks specifically to the "the likely effect of the water use to be authorised on the water resource and *on other water users*" which means other existing users (whether under General Authorisations, *de minimis* users, or other WULs) in the catchment area, to assess the cumulative impacts of the allocations. This factor was therefore adequately considered by the responsible authority. No new information was submitted before the Tribunal to equivocate the finding that the WUL application was in relation to new water uses by the second respondent."[107]

Section 27(1)(b): The need to redress the results of past racial and gender Discrimination.

70. The appellant submits that the likely effects of the Khanyisa Project will diminish access to water by previously disadvantaged communities reliant on the Olifants River Catchment (ORC). Furthermore, it is argued that the use of reclaimed water from the eMalahleni Water Reclamation Plant (EWRP) will impact the capacity of the eMalahleni municipality to provide portable water to its residents. Just for the record the EWRP is a result on research, development and innovation by Anglo American, the originator of the Khanyisa Project. Since 2007 this innovation and establishment of this water reclamation scheme has seen Anglo American treat water from its mining operations in the area and provide that water to the municipality.[108] It is not as if the municipality meets the costs of operating the EWRP.

71. The appellant submits that the WUL application did not specify the water footprint of the Khanyisa Project.[109] To the contrary, the ROR clearly states that, "ACWA Power Khanyisa Thermal Power Station (RF) (Pty) Ltd is expected to use 4,394m3 per day and recover approximately 2,588m3 per day, which is equivalent to 37%

[107] Tribunal Record, page 72.
[108] See 'eMalahleni: Water Reclamation Plant (South Africa)' < https://unfccc.int/climate-action/momentum-for-change/lighthouse-activities/emalahleni-water-reclamation-plant >
[109] Appeal Record, page 92.

of the total water demand."[110]

72. Further submissions by the appellant on this factor relate to how a coal-fired power plant will pollute the area and increase the cost of electricity,[111] and to the employment potential of the project. In our view these are socio-economic considerations relevant to section 27(1)(c) and (d) of the NWA and not quite germane to "the need to redress the results of past racial and gender discrimination". While this factor is relevant, it is not as much relevant as the other factors.

73. The mere fact that the second respondent went through and fulfilled the qualifying criteria to be an IPP[112] could imply that it also met the local procurement and empowerment requirements for that programme. The second respondent met the empowerment (BEEE) threshold required for the IPP process.[113] Those are the aspects that demonstrate that authorising the second respondent to use water for purpose of a novel power generating project may advance the dismantling of Eskom monopoly which has to date threatened energy security in the country. However, some of these are issues largely outside the remit of the Tribunal.

74. The Khanyisa Project will not use freshwater resources[114] and will also not generate wastewater as it will use a closed loop system. This dispels claims that the projects will affect access to water by local communities. On the contrary by avoiding the use of freshwater sources and putting in measures to minimize and mitigate water pollution the second respondent could be avoiding adversely impacting women and children who are often tasked with sourcing water.

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

75. As far as this factor is concerned the appellant argues that the first respondent authorised water uses that are not efficient or beneficial in the public interest. For

[110] Tribunal Record, page 73.
[111] Appeal Record, page 94 "the introduction of unnecessary and expensive coal plants such as the Khanyisa Project into the electricity sector will increase the cost and price of electricity." This is also beyond our jurisdiction as noted in the introduction.
[112] Appeal Record, page 765.
[113] Appel Record, page 456.
[114] Tribunal Record, page 36; Record of Proceedings, page 499.

their part, the respondents submit that the water uses authorised are efficient in that they ensure no reliance on freshwater sources and minimise water pollution. They further argue that the water uses are beneficial to the extent that they indirectly enable the country to address the problem of energy insecurity.[115] The latter point is disputed by the appellants who submit that the country does not need more generating capacity. The appellants submit that "In January 2017, Eskom confirmed that it had a surplus of 5 600MW at peak and could meet any increase in demand until 2021" and that "South Africa's electricity demand has drastically reduced, and Eskom currently has excess capacity."[116] These energy policy choices and implications analysed by the appellant including issues of Eskom's capacity[117] and supply adequacy[118] are irrelevant to this appeal.

76. We agree with the appellant that nationally these are important issues that energy regulators and the government should grapple with.[119] Yet as we highlighted above, this Tribunal has no mandate to decide whether the country needs more electricity, and whether coal or renewables should be preferred, and what the cost implications of such decisions are on the economy,[120] except perhaps *in the specific context of the impact of the proposed water uses associated with the coal fired power station on water resources*. It is for these reasons that the expert evidence of Burton and reports referred to elsewhere above are unilluminating.[121] Despite this, the reality is that even during the hearing of the appeal the threat of load shedding hung over the country and that has been the case throughout much of 2018 to early 2020.

[115] Appeal Record, page 513-514.
[116] Appeal Record, page 95.
[117] Appeal Record, page 96.
[118] Appeal Record, page 100.
[119] These issues are governed by the National Energy Act 34/2008, the Electricity Regulation Act 4/2006, National Energy Regulator of South Africa Act 40/2004, and possibly the Nuclear Energy Act 46/1999 and regulations and strategies made thereunder. The Tribunal and responsible authority have no mandate to make policy or legal decisions in relation to these issues even though they may be relevant and in fact affect water resources. A decision by NERSA whether to license generation of electricity from coal, wind, solar or nuclear has consequences for water use as these have different water footprints. But it remains the decision of NERSA to make.
[120] Appeal Record, page 97 - 100 references to the "ERC IPP Report" and other matters of energy policy on which decisions are made by other government departments are irrelevant to the appeal. The question remains whether it is a beneficial use of water to authorise the specific water uses that first respondent authorised.
[121] See Note 26 above and the list of reports authored or co-authored by Burton that the appellants claim to be relevant.

77. Any connection between the authorised water uses and the country's energy policies, the price of electricity, and the future of coal in South Africa's energy plans are important nationally but irrelevant to this appeal. To the extent that South African laws permit the use of diverse sources of energy, a WUL may not be refused merely because one prefers renewable energy against fossil fuels. This distinguishes a campaign from decision-making in a concrete case. An appeal against the WUL is not the proper forum to question the decision whether or not the Khanyisa Project *qua* coal-fired electricity plant should have been approved by IPP office or licenced by NERSA.

78. Be that as it may, in considering whether a proposed water use is beneficial "in the public interest" the first respondent was right to look beyond the impact of the water uses on the surrounding users and water resources specifically, towards the water security in the country. Section 27(1) must be read with the purposes of the NWA, as set out in section 2 of that Act. These include that "the nation's water resources are protected, used, developed, conserved, managed and controlled in ways which take into account amongst other factors…meeting the basic human needs of present and future generations"[122] and "promoting the efficient, *sustainable* and *beneficial use* of water in the public interest"(our emphasis).[123] The NWA therefore requires the first respondent and the Tribunal when considering whether a water use is beneficial in the public interest to consider, not only the interests of all South Africans, but also those of future generations and the reserve (aquatic and ecosystem needs). This is a central part of the concept of sustainability.

79. Since the decision to authorise the water uses is also a decision contemplated in section 2 of NEMA that may significantly affect the environment, any consideration of the public interest must include a consideration of whether or not the decision is consistent with the public's right to have the environment protected and the need to secure ecologically sustainable development, with particular reference to the effect of the decision on water resources.

[122] Section 2(1)(a) of the NWA.
[123] Section 2(1)(d) of the NWA.

80. In the light of all these provisions of the empowering legislation, the first respondent ought in considering the implications of section 27(1)(c) to have recognised that the effect of authorising the water uses, in particular those relating to the Coal Ash Disposal Facility, could potentially contaminate 140ha of land with hazardous waste. While we have found that the mitigation measures proposed are reasonable and consistent with the law, in the very long term this large area of land is at best sterilised from an ecological sustainability perspective (notwithstanding that some surface uses may be possible later). At worst the uses can contribute to groundwater pollution at some point in the long-term, even if this happens after the "design life" of the facility has ended, hundreds of years from now. This cannot be said to be a sustainable development path, taking into consideration the finite nature of our scarce water resources.

81. Secondly, it is not in dispute that, regardless of mitigating measures, building a coal fired power station will increase South Africa's total emissions of greenhouse gases and thereby contribute to climate change which will impact water security. It is also not in dispute that South Africa has committed to reduce the emission of greenhouse gases. One of the key impacts of climate change in Southern Africa will be water scarcity.

82. From a water security angle, the first respondent ought to have considered whether authorising the water uses which are prerequisite for the Khanyisa project is sustainable and in the public interest, considering the basic needs of future generations. That the first respondent did not fully consider this broader perspective sustainable water use is clear. On the facts and based on the design of the Khanyisa project (use and re-use water, to minimise water pollution)[124] the water uses may be viewed as being technically efficient but not necessarily beneficial in the public interest. The first respondent did not weigh up these factors with the impacts of climate change on water when considering questions of beneficial use and sustainability for purposes of section 27(1)(c). If it had, it could not have concluded that the authorised water uses promoted the beneficial and sustainable use of water in the public interest.

[124] Appeal Record, page 460.

Section 27(1)(d): The socio-economic impact of the water uses.

83. In its specialist studies including the Social Impact Assessment, the second respondent indicated that the Khanyisa Project will create employment and contribute to the economic upliftment of the project area.[125] The appellant disputes the claims on employment and further notes that given lack of skills it is unlikely the local community will benefit much from such employment.

84. The appellant claims that renewable energy could equally provide employment opportunities.[126] We reiterate that whether or not better jobs are created by coal-fired power plants or renewable energy are policy decisions beyond the remit of this Tribunal. Regardless of our views on section 27 (1) (c), it is not permissible for the Tribunal, by proxy as it were, to use water use authorisations to change or influence the energy source preferences determined by the Department of Energy.

85. Appellant repeats the claims that a "transitioning away from coal is not only favourable, but affordable, achievable, and least cost", that the project will increase the cost of electricity and increase the socio-economic costs of toxic air pollutants.[127] Again the Tribunal has no mandate to decide what the permissible atmospheric emissions should be for the Khanyisa project.[128] These are matters, though relevant, that the Department of Energy, NERSA[129] and the authority responsible for Atmospheric Emission Licences[130] should be seized with. A WUL application does not directly deal with air pollution or energy transitions and the economic implications of these processes.

86. The first two objectives of the NWRS are that "Water supports development and the elimination of poverty and inequality" and "Water contributes to the economy and job creation."[131] The water uses authorised in this case are directly linked to

[125] Appeal Record, page 73.
[126] Appeal Record, page 102.
[127] Appeal Record, page 102-103. ("The DWS did not consider the potential harm to health from Khanyisa's toxic air emissions, which would create significant socio-economic costs. An assessment using epidemiological data recently commissioned by the Appellant shows that Eskom's existing coal fleet results in 2,239 attributable deaths per year as well as a heavy burden of illness. The monetised costs of death and disease add up to around R33 billion ($2.4 billion) per year."
[128] Appeal Record, page 472; The court ruled in *Coal Transporters Forum* coal remains a central cog in South Africa' energy policy.
[129] See *Coal Transporters Forum* case, included at Appeal Record, page 470, 472.
[130] Appeal Record, page 465.
[131] NWRS page 12.

creation of jobs and the undertaking of an activity (provision of electricity) that is core to the South African economy. We are convinced that the responsible authority adequately considered the socio-economic implications of either granting or refusing the WUL, albeit ignoring long-term water sustainability. The information and evidence presented to us would not change the decision to authorise the water uses concerned on the basis of this factor.

Section 27(1)(e): Any catchment management strategy applicable to the relevant water resource.

87. In granting a WUL the responsible authority and the Tribunal should consider and be guided by any strategies for managing the water resource concerned. Indeed, the appellant correctly submits that in the NWRS "the water energy connection should receive more attention to ensure that policies that transition to a sustainable, low-carbon South African economy are achieved."[132] The appellant further acknowledges that the ROR records that the following documents were considered:

    i. Development of a Water Quality Management Plan for the Witbank Dam and Middleburg Dam Catchments (1993);
    ii. Ecological Water Requirements Assessment for the Olifants River (2001);
    iii. Validation study for the Olifants WMA (2006);
    iv. Development of a Reconciliation Strategy for the Olifants WMA;
    v. Classification of significant water resources in the Olifants WMA (project commenced 2011)."[133]

    The documents listed above together with the 2013 NWRS and applicable policies cannot be considered in isolation.

88. We noted above that the NWRS is much broader in its approach anchored around three main objectives. However, the appellant refers only to Chapters 6[134] and 7[135] of the NWRS which speaks to its appeal. A narrow selective approach is not what section 7 of the NWA calls us to adopt. The NWRS should be considered in its totality especially the objectives that underpin these principles and strategies.

[132] National Water Resources Strategy II (2nd edition) (June 2013), p55 as cited by appellants Appeal Record, page 104.
[133] Appeal Record, page 103.
[134] NWRS, page 45 'Equitable water allocation'.
[135] NWRS, page 52 'Water conservation and water demand management (WCWDM).

89. There are five priories listed in the NWRS, and as the appellant notes, these include in fourth place "(4) allocation of water for uses strategically important to the national economy including water transfer between management areas, and *continued availability of water to be used for electricity generation throughout the country*…" (our emphasis). Clearly, while futuristic and preparing the country to gradually transition to a low carbon economy and efficient, but sustainable, water use regime, the NWRS recognises the need to for water uses that support energy security.

90. What is important is that the NWRS notes the challenges faced in a section 27(1) assessment by the decision-maker. It states that,

> "The objective for management of water resources is to achieve optimum, long-term, environmentally sustainable social and economic benefit for society from their use.
> This recognises that water has social, economic and ecological value. It is also recognised that weighing up the social and/or economic benefits of competing water uses is not easy and becomes more complex when the ecological costs and benefits must be considered as well. This means that the decision on how best to allocate water between competing uses requires a complex and difficult assessment, which includes the ability to assess social, economic and ecological values arising from various water uses."[136]

This complexity means that indeed what the appellant urges is a possible pathway to a different decision on the WUL, but equally, as the court states in *Makhanya* the decision chosen by the responsible authority is not shown to be unreasonable or irrational. It is apparent that the NWRS and the documents listed above should assist the Tribunal is the balancing the factors in section 27(1).

91. We agree with the appellant's contention that the "Scenarios Analysis Report" calls for "Reduced load due to seepages from the mine, industrial and power station waste storage facilities and mining operations in the Upper Olifants sub-catchment".[137] In so doing the responsible authority or Tribunal should ensure that appropriate conditions are included in the WUL to mitigate or eliminate such seepages. It is in this context that we should balance the water needs of the

[136] NWRS, page 47.
[137] Appeal Record, page 105.

Khanyisa project, the basic ecosystem needs, and the socio-economic realities of eMalahleni.

92. The question then becomes whether the WUL conditions[138] are stringent enough to concurrently advance the NWRS and "Integrated Water Quality Management Plan for the Olifants River System" (IWQMP)[139] objectives of promoting a developmental state while preventing avoidable water pollution and holding the water user responsible for any remediation that may become necessary.

93. We believe that the responsible authority, as we have done also, considered and balanced the imperatives in the strategies relevant to the Olifants River Catchment, although there is as yet no specific catchment management strategy. It is unfortunate that as a Tribunal, we are unable to directly monitor compliance and enforcement of WUL conditions, but we should believe that if properly implemented and enforced the WUL conditions can ensure sustainable use of water resources.

Section 27(1)(f): The likely effect of the water uses to be authorised on the water resource and on other water users.

94. The potential impacts of the water use authorised in terms of the WUL has been discussed above, in the context of the first ground of appeal. While noting that indeed the Khanyisa Project may have adverse environmental effects including possible water pollution, we noted the scientific studies that went into the design and technology selection as well as the proposed mitigation measures. The ROR demonstrates that once the application was received it was subject to further scrutiny by internal experts.

95. What should not be forgotten is that the memoranda by Marisa Groenewald,[140] and Gift Bhebhe[141] among other critical assessment of the WUL application are part of the first respondent's consideration of an application. It is contradictory in one and

[138] Tribunal Record, page 6 - 30, the WUL provides for detailed Monitoring, Reporting and Remediation conditions for each of the six uses authorized.
[139] "Integrated Water Quality Management Plan for the Olifants River System: Upper Olifants Sub-catchment Plan ("Upper ORC Plan")" August 2017, Appeal Record, page 106.
[140] Appeal Record, page 231 (Resource Directed Measure Directorate Comments, October 2011).
[141] Appeal Record, page 426.

the same breath to claim that the responsible authority did not apply its mind or failed to consider certain factors, and then use the rigorous feedback from its officers as evidence of that.

96. If anything, these internal feedback processes demonstrate that the officers of the first respondent applied their mind critically when they compiled the ROR on the basis of which the granting of the WUL is recommended. Over a period of ten months comments on the application were received from Specialist Scientist: In-Stream Use; Civil Engineers; Chief Landscape Architect: In- Stream Water Use; and Control Environmental Officers.[142] In an iterative process these comments were fed back to the applicant and its consultants who would then be expected, and did in fact submit revised documents[143] incorporating the recommendation of the internal experts. This process goes back and forth as the case maybe until the final ROR recommendations are made.

97. Thus, for example Bhebhe (Civil Engineering) on 11 April 2017 recommended that;

    i. The civil design aspects of this application have not been adequately addressed.
    ii. Issuance of a water use licence is *therefore not supported at this stage.*
    iii. To expedite the WULA processing, it is recommended that a meeting be convened with the applicant and their civil engineer in order to confirm the project scope and clarify the civil design requirements for the WULA.[144]

This, precisely, is the process whereby the first respondent's department rigorously considers applications. It does not necessarily mean because in April 2011 Bhebhe expressed misgivings about the civil design aspects then the responsible authority should have refused the WUL in December 2017.

98. Similarly, the Chief Land Architect made several recommendation for design changes and further requirements that second respondent had to comply with or implement before a WUL could be granted.[145] These evaluations of the WUL application demonstrate that the first respondent considered the likely effect of the water uses on water resources and recommended mitigating measures which

[142] Tribunal Record, page 35.
[143] Appeal Record, page 124 (this accounts for the differences between the original 2016 application and the 2017 final application.)
[144] Appeal Record, page 432.
[145] Tribunal Record, page 152-153.

found their way into the WUL conditions.

99. The submissions based on the failure of the Coal Ash Disposal Facility liner system and underground and wetland pollution all assume the liner will fail. No information has been presented by the parties and the experts on the basis of which this conclusion is arrived at. We therefore conclude that the effects on water will be minimal and can be adequately mitigated. However, in the long term these effects are unsustainable.

Section 27(1)(g): The class and resource quality objectives of the water resource.

100. The ROR documents the resource quality objectives (RQO) for the catchment management area.[146] The water uses authorised for second respondent do not seem to threaten these quality objectives unless there is a failure in the lining system and other water pollution management measures proposed for the power plant itself. While indeed as the appellant argues "The RoR does not discuss why Khanyisa would not threaten the class and RQOs of the water resource, but instead includes a table presenting RQOs." The appellant does not proffer any facts why Khanyisa would threaten RQOs.

101. Having applied our minds to the information presented on the technical design, water management and usage by the project we are able to determine that there is little likelihood of a significant failure of the pollution control mechanisms designed by the second respondent. Chances of the RQO being adversely affected are therefore minimal.

Section 27(1)(h): Investments already made and to be made by the water user in respect of the water use in question.

102. While there are scant details on what investment the second respondent has already made, it is public knowledge that the IPP procurement programme entails huge capital outlay to prepare and submit bids. That the second respondent went

[146] Tribunal Record, page 74-75.

through that process as well as obtaining an environmental authorisation in October 2013 demonstrate that the second respondent has invested substantial amounts of money into the Khanyisa Project.[147] The ROR records that future investment is estimated to be R15 billion in infrastructure. The cost of this preparatory work should not be discounted, yet we highlight that the second Respondent went into the authorisations process with full knowledge of the attendant risks of one or other authorisation/permit not being granted, or financial closure not being achieved. We therefore cannot place too much weight to this factor.

Section 27(1)(i): The strategic importance of the water uses to be authorised.

103. What we have stated above in relation to the policy decisions and choices made and the imperatives of the NWRS covers this factor. The appellant assisted the Tribunal by ventilating the water situation in the country and specifically the state of water resources in the Olifants River Catchment. When we consider the law and the relevant policy documents it is reasonable to conclude that authorising water uses to enable generation of electricity is consistent with the NWRS as long as any potential adverse impacts of such uses have been adequately studied and mitigation measures proposed that are reasonable. Under this factor the appellants persist with their Burton backed submissions on energy costs, electricity demand, and energy transitions which we have ruled to be tangential to the issues before us, and beyond the Tribunal's jurisdiction.[148]

Section 27(1)(k): The quality of water in the water resource which may be required for the Reserve and for meeting international obligations.

104. The submissions to support this ground of appeal are based on the potential impacts on water identified by the appellant's expert witnesses Dr Mills, Chambers and Mr Hansen.[149] At this stage the appellants purports to argue that its expert reports are supported by the internal comments by Groenewald and

[147] This investment includes the cost of consultants like Aurecon, and other specialists as well indeed as the cost of this current litigation which is part of the second respondent's efforts to secure a WUL.
[148] See Appeal Record, page 112-113.
[149] Appeal Record, page 115.

Bhebhe.[150] This misconstrues the nature of the Groenewald and Bhebhe memorandums which has been explained above.

105. Further submissions on this factor are irrelevant to the issue of reserve determination and impact on international obligations. For example, the water to be used by the project from the EWRP is not an abstraction in terms of section 21(a) of the NWA (taking water from a water resource).[151] Clearly, there are no negative indications that the authorised water uses will impact the reserve or international obligations. This is especially the case given that the Khanyisa Project relies on a closed loop water use and management system.

Section 27(1)(l): The probable duration for any undertaking.

106. No material dispute is raised regarding this factor. The WUL granted to the second respondent is for a period of twenty years reviewable at five-year intervals. This is in accordance with the competence of the responsible authority. The important point to highlight is that the five-year review period allows the responsible authority to monitor compliance with the WUL conditions and if necessary enforce or act in terms of section 19 of the NWA to force the water user to take reasonable measures to prevent any water pollution. This dispels any notions that the Coal Ash Disposal Facility's life span is uncertain or that its capacity will be a future constraint.

107. Despite the fact that we have concluded that the proposed water uses do not constitute a beneficial and sustainable use of water in the public interest, a consideration of all the information before the responsible authority as detailed in the ROR and indeed the objections submitted by interested and affected parties, leads us to conclude that the first respondent took a reasonable decision consistent with section 27(1) of the NWA. The court in *Makhanya* acknowledged that "section 27(1)(b) contains a wide number of objectives and principles. Some of them may be in conflict with one another, as they cannot all be fully achieved

[150] Appeal Record, page 115.
[151] Appeal Record, page 115; The NWA defines "water resource" as "includ[ing] a watercourse, surface water, estuary, or aquifer" therefore excluding a reclamation plant like the EWRP.

simultaneously."[152] As we have set out above, the decision maker is only required to strike a reasonable balance between the factors.

108. We have further reflected on the merits of the appeal and assessed new evidence in the further expert reviews and see no cause to depart from the decision to grant the WUL based on section 27(1).

The Director-General has failed in its duty as Public Trustee of South Africa's water resources.

109. This ground of appeal is among the unsubstantiated submissions made by the appellant. The discussion above regarding the extent to which section 27(1) factors were considered as well as the conditions imposed in the WUL are not symptomatic of a trustee who is failing in her duties. Section 3 of the NWA bestows this duty on the government acting through the Minister as a designated officer. Section 3 is very specific that this duty is not a duty to prevent water pollution per se but that the Minister "must ensure that water is protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner, for the benefit of all persons and in accordance with its constitutional mandate."

110. The duty requires the responsible authority to ensure sustainable use of water resources while protecting the resources from significant and avoidable pollution. We have no doubt that, in granting the WUL at issue, the responsible authority acted in accordance with section 3, although we come to a different conclusion regarding sustainable use.

Failure to give effect to the National Water Resource Strategy, and catchment management strategies in terms of sections 7 and 11 of NWA.

111. This ground of appeal has been addressed above under section 27(1) factors.

Adequate consideration of the reserve in terms of section 18 of the NWA and contravention of the NEMA section 2 principles.

112. The issue of the reserve has been dealt with under section 27(1)(k) above. What remains to be addressed is the submission that the first respondent contravened section 2 of the NEMA. In particular three principles are initially picked

[152] *Makhanya NO and another v Goede Wellington Boerdery (Pty) Ltd* [2013]1 All SA 526 (SCA), para 33.

up, and later only two are pursued in the appeal. These two are the "precautionary principle"[153] and the "polluter pays principle."[154]

113. The appellant contend that the first respondent failed to uphold the principle as articulated in the Fuel Retailers case[155] in that despite the potential for water pollution in the Olifants River Catchment the WUL was granted. This submission is premised on the assumption that the location and design of the power plant and the Coal Ash Disposal Facility will lead to water pollution.[156] Our analysis above indicates that the first respondent considered the social, economic and environmental considerations before granting the WUL. The section 27(1) (NWA) analysis above is self-explanatory.

114. As far as the precautionary principle is concerned, appellants argue that the Khanyisa Project will lead to the emission of greenhouse gases and thereby contribute to South Africa's climate change footprint.[157] It is added further that by permitting the Coal Ash Disposal Facility the first respondent violated the precautionary principle. The claims made and facts offered to support these claims do not sufficiently make a case that the precautionary principle has been violated. We have already indicated above why the *Thabametsi* case does not support the appellant's case, although it highlights the criticalness of climate change where relevant.[158]

115. Proceeding to the polluter pays principle, no real motivation is advanced to demonstrate that the first respondent violated this principle. On the contrary the technical, legal and other conditions imposed in the WUL as well as the cost of mitigation measures show that the second respondent will be responsible to remedy any pollution arising from the Khanyisa Project.

[153] NEMA, section 2(4)(a)(vii).
[154] NEMA, section 2(4)(p).
[155] *Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province and Others* 2007 (6) SA 4 (CC), paras 76 – 96.
[156] Appeal Record, page 119.
[157] Appeal Record, page 120.
[158] See Second Respondent's Opposition (Appeal Record, page 465-467.)

Khanyisa does not have a WUL for all activities under section 21 of the NWA.

116. There is no indication that second respondent will need or use a coal washing facility and therefore no foundation has been laid for this ground of appeal.

Unreasonably vague and unenforceable conditions in the WUL.

117. No information has been provided by way of evidence or other reports to show that the WUL conditions are vague and unenforceable. A bald claim is made that enforcement of the conditions "will not effectively mitigate the significant environmental damage to water resources stemming from the construction and operation of the Khanyisa Project."[159] Appellant further argues that "There is no indication that the DG or DWS made any effort to independently assess or evaluate the information presented by Khanyisa."[160]

118. These submissions fly in the face of the ROR and memoranda that are so critical of the WUL application that even the appellant relied on some of them. The list of internal experts who reviewed and over ten months recommended various changes and condition to the WUL are satisfactory evidence that the first respondent's department had a whole team independently assessing and evaluating the application.

119. On the facts we are satisfied, not only that the responsible authority applied itself, but also ourselves - we have expended considerable amount of time assessing and considering the submission before and after the hearing to make an informed decision on this WUL application. Nevertheless, apart from the substantive consideration above and section 27(1) analysis the decision of the first respondent should with stand scrutiny for procedural fairness.

[159] Appeal Record, page 121.
[160] Ibid.

Inadequate public participation and procedural unfairness.

120. The process for water use authorisation is an administrative process which should comply with the principles of fair administrative decision-making. These principles are found both in section 33 of the Constitution but in more detail in section 6 of the PAJA, the NWA and the NEMA. The process of allowing the public to participate in a decision-making process is key to ensuring that a fair administrative procedure is followed. A decision can be reasonable on the merits but falter on due process requirements.

121. Internally, the NWA provides in section 41(4) and 41(5) that the responsible authority (first respondent) may require the second respondent to undertake a public participation process during the water use licence application process.[161] The nature of section 41(4) has been explained by the courts.[162]

122. It is the appellant's case that the respondents excluded it from required participation in the licence application process. In particular, it is argued that while the appellant had access to the original 2016 WUL application, it was not afforded the opportunity to comment on the revised and updated 2017 application.[163] Given the contentiousness of this ground it is necessary to reproduce what the ROR report on public participation;

> "Notification letter dated 3 November 2016 and the list of changes was distributed to all the registered Interested and Affected Parties informing them of the revision of the IWULA and the different applications and amendments since the submission of the original IWULA submitted by Anglo Operations in 2013. Furthermore, Interested and Affected Parties were informed that the Final IWULA and IWWMP would be submitted to DWS on the 3rd of November 2016 and that Interested and Affected Parties should comment directly to DWS by 3 December 2016.
>
> Centre of Environmental Rights e-mailed a letter dated 7 November 2016 to DWS and the applicant objecting to the period of 30 days for Interested and Affected Parties to comment and that the previous commenting opportunity in 2010 must be disregarded for purpose of ensuring adequate consultation on this IWULA and IWWMP. The Department requested the applicant on the letter

[161] Such a directive was issued by letter dated 22 February 2017 (Tribunal Record, page 31.)
[162] *Escarpment Environment Protection Group and Another v Department of Water Affairs and Others*, 2013 JDR 2700 (GNP).
[163] Appellants allege, "ACWA's failure to conduct proper public participation, in particular in respect of the two additional IWULA processes in February 2017 and June 2017, the IWULA, as well as the WUL issued…"

> dated 22 February 2017 to conduct Public Participation process in terms of S41(4), for a minimum period of 60 days for receiving objections, excluding the period 15 December 2016 to 5 January 2017.
>
> Furthermore a letter dated 22 February 2017 was sent by the Department to Centre of Environmental Rights that the applicant has already informed the Department that they are reviewing their public participation process and that the Department will communicate with Khanyisa IPP to exclude the period of - 15 December 2016 to 5 Janua1y 2017 as per Centre of Environmental Rights request. It is further stated in the letter that the National Water Act, 1998 (Act No. 36 of 1998) only requires that the applicant describes the water uses applied for and the activity so that the Interested and Affected Parties are provided the opportunity to object. The Responsible Authority applies his or her discretion based on the objections and reports supplied by the applicant. The applicant is not obliged to provide the Interested and Affected Parties with the application and the reports.
>
> The applicant notified Interested and Affected Parties on 18 November 2016 that the period for comments was extended to 23 January 2017 and that the comments should be directed to DWS."[164]

123. What is apparent from this report is that the appellant was not "excluded" as such from the decision-making process. The appellant admits that it was one of the Interested and Affected Parties (IAPs) registered once the WUL application was submitted in November 2016. Indeed, the ROR provides a table which list the IAPs who were registered and the date nature of their objections or comments. The ROR records a letter by the appellant's attorneys on 8 November 2016 requesting for the public comment period to be extended into 2017. The first respondent responded favourably and extended the public participation period to 23 January 2017. Then on 23 January 2017 the appellant submitted objections or comments to the first respondent.[165] On 25 July 2017 the appellant's attorneys wrote a letter to the respondents.

124. In order to get a clear picture of the communications among the parties we will list the letters exchanged and their implications. After submitting the letter of objection in January 2017, the next letter from the appellants came from their attorneys dated 27 June 2017.[166] In this letter the appellant's attorneys inquired on the status of the

[164] Tribunal Record, page 69.
[165] Tribunal Record, page 192 (Objections submitted to DWS – opinion by Carin Bosman Sustainable Solutions Cc re: Independent Peer Review of IWULA and IWWMP dated November 2016).
[166] Appeal Record, page 311.

WUL application and the Atmospheric Emissions Licence (AEL).

125. From the ROR we know that at June 2017 the WUL had not yet been granted and the internal experts were still reviewing the application.[167] The EAP responded to this letter on 27 June 2017 notifying that "DWS is still reviewing the application and unfortunately we have no information on when the WUL is expected to be issued." We note that at this stage the appellants did not request any information on the application. Rather they were following up to find out if a decision had been made, presumably oblivious that the application documents were changing and being revised continuously. There is no way the appellants would have known about these changes to the WULA unless these were communicated to them. There is no evidence that the changes were communicated. As such, we find that the appellant did not have a reasonable opportunity to make representations on the 2017 application, as is required by law.

126. On 4 July 2017[168] the Acting Chief Executive-Olifants Proto CMA addressed a letter to the second respondent which seems to imply that the November 2016 WULA was pending. The letter highlights a meeting that took place on 3 May 2017 among the respondents. The letter is a request for further documents and information necessary for the first respondent to continue considering the second respondent's WULA.

127. On 25 July 2017[169] the appellant's attorneys wrote to the second respondent's EAP asking for the GPS coordinates of the Khanyisa Project. Further emails from the appellant's attorneys were written on 26 July 2017 on issues related to the environmental authorisation. Thereafter the next letter was written on 25 October 2017, but it dealt with the atmospheric emission licence, GPS coordinates, and the environmental impact reports.[170]

128. Another letter was sent on 25 October 2017 asking for the water use licence

[167] Tribunal Record, page 35 (Document History and Review.)
[168] Appeal Record, page 309-310.
[169] Appeal Record, page 308.
[170] Appeal Record, page 307.

application documents, these having been removed from the Aurecon website.[171] On 15 November 2017[172] appellant's attorney wrote to the second respondent's EAP again advising that the WUL application website was down and inaccessible. A follow up email was sent on 16 November 2017. In the meantime, we gathered from the ROR that on 25 October 2017 the water use application assessment committee (WUAAAC) had finalised the ROR and recommended the granting of the licence.[173] On 11 January 2018 appellants again wrote to the EAP requesting information and annexures to the environmental impact report (EIR). A follow up email on this was written on 15 January 2018.

129. On 30 January 2018 the appellant wrote to the respondents asking for a bigger list of documents now including "all the documentation pertaining to the IWULA application including any appendices (Appendix A-J) and annexures (if any) (together with any other documentation that was considered for the application)."[174] None of the letters were responded to with any of the requested information.

130. Finally, on 12 February 2018 the appellant's attorneys send a formal letter of demand for the documents request in the previous several emails to which there had been no response.

131. The second respondent's EAP replied on 19 February 2018 indicating that they could not furnish most of the information as the Environmental Authorisation was subject of High Court review proceedings. The EAP advised the appellant to contact their attorneys with the documents request. In a letter dated 1 March 2018 addressed to the first respondent, the appellant's attorneys indicated that they had obtained a copy of the WUL from NERSA. They were writing to note their concerns and request for documents.

132. Based on the above dealings, the appellant alleges that the second respondent failed to comply with the directive from the first respondent dated 22 February 2017. The second respondent's argument is that it did comply on the basis that "All that [the directive] did, after the IWUL application had already been made, was

[171] Appeal Record, page 307.
[172] Appeal Record, page 306.
[173] Tribunal Record, page 35.
[174] Appeal Record, page 302.

require ACWA to give notice to interested parties who were already on record, such as Groundwork."[175] This is an incorrect understanding of the first respondent's directive.

133. The directive letter recorded that Groundwork's attorneys request "was considered and accepted by the Department". The request was for a notice to be published giving the public access to the WULA documents, not just the registered interested and affected parties. The directive then required the second respondent to "conduct a Public Participation process in terms of S41(4), for a minimum period of 60 days for receiving written objections, excluding the period 15 December 2016 to 15 January 2017".

134. Having regard to the wording of section 41(4), it is clear that what the Second Respondent was directed to do was to advertise the revised application in the media. If that had occurred, the appellant would have had the opportunity to consider and comment on the revised application prior to the WUL being finally granted. By letter dated 4 April 2017 the first respondent was still waiting for public participation reports from the second respondent. This letter specifically asked for "minutes of meetings with Interested and/or Affected Parties other than the Department of Water and Sanitation."[176] It also requested "the response to the objections raised by Carin Bosman Sustainable Solutions cc and Centre for Environmental Rights."[177] The second respondent did not fully comply.

What was the effect of the Second Respondents failure to comply with the directive?

135. The language of section 41(1) is peremptory:

> An application for a water use licence ***must*** -
> (a) be made in the form;
> (b) ***contain the information***; and
> (c) be accompanied by the processing fee,
> ***determined by the responsible authority***." (our emphasis).[178]

[175] ACWA closing submissions paragraph 71.1.
[176] Appeal Record, page 309-310.
[177] Ibid.
[178] This is amplified in Regulation 17 of the Water Use Licence Application and Appeals Regulations (GNR 267 in *Government Gazette* no. 40713 of 24 March 2017.)

136. In this case the WUL application did not contain all of the information determined as required by the first respondent, because it did not contain the comments of the interested and affected parties who might have seen notices in the media and wished to submit comments. The appellant alleges, and the respondents did not introduce any evidence to the contrary, that the objection the appellant submitted to the application was based on information about the application contained in the 3 November 2016 letter regarding the re-submission of the WUL application and not on the subsequent revisions of the application, of which the appellant did not become aware until after the licence was granted.

137. The application for a WUL was therefore decided without taking relevant information (public comments) into account. It was information that the NWA specifically directed the second respondent to solicit and place before the first respondent. The application did not comply with section 41 and for the first respondent to have decided it without that information was inconsistent with the NWA, read with regulations 8, 9, and 17 of the Water Use Licence Application and Appeals Regulations. These regulations, read together, require a licence application which has not taken into account "instructions or guidance provided by the responsible authority to the applicant" to be rejected.[179] The second respondent contended that nothing was going to change since they had already conducted a public participation process for the environmental authorisation.

138. Was it lawful for the second respondent to rely on the public participation process in the preceding application for environmental authorisation to fulfil its duty to ensure a procedurally fair administrative process and to ensure that it considered all relevant information? It was common cause that the public participation process for that application was conducted in 2010, some 6 to 7 years previously. We have already found that the two processes were not integrated. Not only would the receiving environment and the policy environment have changed substantially, but the documentation made available to interested and affected parties in the environmental authorisation was substantially different to that on the basis of which

[179] Regulation 8(b), Water Use Licence Application and Appeals Regulations (GNR 267 in *Government Gazette* no. 40713 of 24 March 2017.).

the first respondent ultimately made its decision in December 2017. It was not in dispute that the application for the WUL had been revised twice since the environmental authorisation had been granted; or that the changes to the application included a change of applicant, increased capacity, additional water uses, new technical reports and at least 11 newly generated specialist reports. For these reasons, there can be no sense in which the public participation process for the environmental authorisation was enough to substitute for public participation in the WUL application.

139. Was this failure to meet the procedural fairness requirements of the Constitution, PAJA, NEMA and the NWA itself with respect to public participation rectifiable during the re-hearing of this matter before the Tribunal? Although the appellant had subsequently obtained access to all the documents in the application, this was inadequate to remedy the procedural defects in the original application process. If the second respondent had complied with the first respondent's directive, potentially other interested and affected parties may have submitted comments on the application.

140. Given the length of time that had passed since the application for environmental authorisation had been decided; the serious potential impacts on the water resources of a new coal-fired power station; the more prominent role that climate change concerns ,with regard to water, have in the public consciousness in the last few years and the major changes to the WUL application itself since the application process began; it is likely that a new set of interested and affected parties other than the appellants or those included in the 3 November 2016 email would have wished to submit comments.

141. The first respondent should not have granted the application considering the second's respondent's failure to comply with its section 41 (4) directive. The failure was material because the only previous point at which the public had been given an opportunity to participate in the application was during the process undertaken in respect of the separate application for environmental authorisation, several years previously. In any case section 24 (7) of the NEMA provides that the process for obtaining an environmental authorisation does not absolve an applicant from

complying with other legal requirements.[180] Section 2(4)(f) of the NEMA requires that "[t]he participation of all interested and affected parties in environmental governance *must be promoted*" (our emphasis). The Court in *Earthlife Africa (Cape Town) v Director General Department of Environmental Affairs and Tourism and Another*[181] held that the approach to procedural fairness in respect of public participation should be "generous" and not legalistic.[182]

142. Whether or not there was opposition to the project from the public and the reasons therefor was relevant information which the first respondent ought to consider before when decided to grant the application. Even as we write, we do not have complete information which the public, apart from the appellant, may have submitted if the directive to undertake a public participation process had been complied with. This is a fatal procedural flaw which overshadows the reasonableness of the decision on merits made by the first respondent on the WUL application.

Findings and decision

143. The appeal is therefore upheld, in so far as the respondents failed to conduct a procedurally fair administrative action.

144. While the appellant failed to substantiate most of the substantive grounds of appeal, the procedural oversight by the respondents is material and fatal to the decision and cannot be cured during the appeal.

145. The application is remitted to the first respondent to rectify the procedural failures.

146. The second respondent is hereby ordered to comply with the original directive

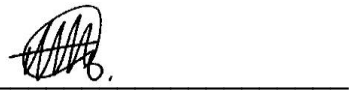
[180] Section 24 (7) NEMA "Compliance with the procedures laid down by the Minister or an MEC in terms of subsection (4) does not absolve a person from complying with any other statutory requirement to obtain authorisation from any organ of state charged by law with authorising, permitting or otherwise allowing the implementation of the activity in question."

[181] *Earthlife Africa (Cape Town) v Director General Department of Environmental Affairs and Tourism and Another* 2005 (3) SA 156 (C).

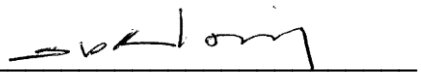
[182] Ibid, para 98.

to advertise the application in the newspapers and invite comment from the public within sixty (60) days from the date on which the parties have delivery of this decision. Such a process in terms of section 41(4) must include all the information based on which the original decision was made, any new expert evidence, and updated reports. Public comments received must properly be placed before and be considered by the first respondent when making its decision.

THUS HANDED DOWN AT PRETORIA ON THIS 21st DAY OF JULY 2020



Tumai Murombo
Additional Member of the Tribunal
(Panel Chair)



Sarah Kvalsvig
Additional Member of the Tribunal