



PO Box 1525, North Riding, 2162 South Africa Cell: 082 554 8900 Tel: 011 462 2985 Fax: 086 657 1612 E-mail: francois@softchem.co.za Website: www.softchem.co.za • water and waste management

- environmental management
- environmental assessments
- air pollution assessments
- dedicated software

ADDENDUM TO SCOPING REPORT FOR THE OMAHOLA PROJECT

Compiled by:

JFC Friend PrEng CEng

Contributors

Dr LE Pretorius and Mr K Frielingsdorf **Reptile Uranium Namibia (Pty) Ltd**

Mr J Verster and Mr C de Jager SNC-Lavalin South Africa (Pty) Ltd



Date:	30 November 2010	
File No:	RUNSCOREP2010.02.DOC	
Report No:	RUNSCOREP/2010/02	
Order No:	RUN2010/01	

CONFIDENTIALITY AND COPYRIGHT SECTION

The content of this report emanated from a privately requested investigation as part of an environmental authorisation and as such is not confidential. Copies of the report will only be primarily issued to the relevant government authorities, and made available to the public via the internet and placement in libraries. Copyright in this report is reserved. No publication or dissemination of its contents is allowed without written permission from SOFTCHEMcc.

ADDENDUM BRIEF

This addendum to the scoping report (No RUNSCOREP/2010/01) was compiled based on feedback received from interested and affected parties (stakeholders) on the public participation process and the scoping report issued for Reptile Uranium Namibia (Pty) Ltd Omahola project.

The report consists of a new Page 9 - 2 of the original report (where Section 9.4 was changed to include reference to stakeholders feedback received), Appendix D (presenting the feedback received from stakeholders) and Appendix E, containing the consolidation of stakeholder's feedback and project team responses.

TABLE OF CONTENTS

Page 9 - 2

APPENDIX D - FEEDBACK RECEIVED FROM STAKEHOLDERS

APPENDIX E - CONSOLIDATION OF STAKEHOLDERS' FEEDBACK AND PROJECT TEAM RESPONSES



i

- forwarding letters to government authorities (see Appendix B for copies of these letters);
- fixing of a notice board at a place conspicuous to the public; and
- placing of advertisements in at least one local newspaper.

9.2 Proof of notice boards and advertisements

Proof of the placement of a notice board is given in Figures 9.2 and 9.3. The advertisements placed in the Republikein newspaper on 10 September 2010, the Namibian newspaper on 13 September 2010, and The Southern Star newspaper on 17 - 23 September 2010 are shown in Figures 9.4, 9.5 and 9.6 respectively.

9.3 Register of interested and affected parties

An interested and affected parties register has been opened, as required in terms of Section 33(1) of the draft EA regulations (MET, 2009), and the present edition is presented in Appendix C.

9.4 Summary of issues raised by interested and affected parties

Apart from various parties forwarding their contact details and information for registration and placement on the IAP register, written comments on the project were received from interested and affected parties (stakeholders), with the written comments received presented in Appendix D, and a consolidation of stakeholder's feedback and project team responses provided in Appendix E.



Figure 9.2 Placement of notice board at entrance to EPL3496.



APPENDIX D

FEEDBACK RECEIVED FROM STAKEHOLDERS

D.1	From Coleen Mannheimer (1) - received 14 November 2010.	Page D2
D.2	From Coleen Mannheimer (2) - received 14 November 2010.	Page D6
D.3	From Riana Scholtz - received 15 November 2010.	Page D7
D.4	From Michelle Kilbourn Louw - received 15/16 November 2010.	Page D8
D.5	From Stephanie van Zyl - received 16 November 2010.	Page D10
D.6	From Michelle Pfaffenthaler - received 17 November 2010.	Page D12
D.7	From Theo Wassenaar (1) - received 17 November 2010.	Page D18
D.8	From Theo Wassenaar (2) - received 19 November 2010.	Page D20



From:"Mannheimer" <manfam@iafrica.com.na>To:<francois@softchem.co.za>Sent:14 November 2010 14:36Attach:Comments Omahola.docSubject:comments

Dear Francois,

I attached a few comments, which I hope the van Rooyens will not take personally. Having been involved with this stuff myself I know how sparse the data are to base your recommendations on.

I am sorry not to have formatted my comments better, but I just don't have time I am afraid.

Regards,

Coleen

John & Coleen Mannheimer P.O. Box 193 Windhoek, Namibia Tel. + 264 61 233614 Fax + 264 61 233727 Coleen cell + 264 (0) 81 127 2820 John cell +264 (0) 81 147 4840 email <u>manfam@iafrica.com.na</u>



- I would have suggested that studies done for other uranium mines in the area could have been consulted, eg. Burke at Rössing
- It would have helped to have a map, or even better a satellite image of the area available in the report.
- No indication of affected area/s ie: pits, dumps, leach pads, roads etc. I think, in the light of my experience, it is necessary to not only know the expected footprint, but also an indication of the collateral area of damage potential. You may say that this reports indicates sensistive areas but how can they score the proportion of undisturbed similar areas if they don't know the footprint?
- I found some of the assignment of species to growth forms odd (eg. Euphorbia phylloclada), but these are always open to interpretation, and these authors are not that familiar with the area I presume.
- The authors have implied in one instance that because, according to the Forest Act, no person may cut, destroy or remove any tree, bush or shrub that occurs in or within 100 m of a river, stream or watercourse without authorization only permission is needed in the case of protected species. This is not correct.
- I thought that Orthanthera albida was endemic. If new information is available I would be glad to get it (and I am not being sarcastic, I am interested).
- I was surprised that no C saxicola was found on dykes I always find it there.
- "8. Salsola tuberculata shrubland of river terraces and undulating plains and footslopes "
 - what do they mean by footslopes? this is a term that I have always associated with
 koppies and mountains.
- "• Suitable habitat adjacent to known rare plant populations has a high probability of being colonized." I am not sure what they mean?
- "6. Plant community species richness
 - The species-richness (or number of species per plot or vegetation type) will depend on the region, climate, topography, ecosystem and degree of transformation. The assessment consists of determining the number of species per vegetation type of a specific habitat, e.g. ridge, and compared to the number of species found in a relative unspoilt (pristine) vegetation type of the same habitat type. The sensitivity scale ranges from low to high." I saw no indication that such a comparison had been made or discussed. Not that I regard it as a problem – in the central Namib they are basically all pristine, but then it is not valid to say that this was used to assign a score.
- "Degree of fragmentation/connectivity/offset areas: medium-high" Can one really clump these and expect laymen (and most of the people who will use this information are laymen) to understand that this is a cumulative assessment – I doubt it
- "Sensitivity of washes medium." Constraints of ecological processes: I think that more discussion should be made of the potential collateral damage that could occur downstream if washes are destroyed on a large scale. In fact, I suggest that, where applicable, there should be more discussion of potential cumulative effects of all the impacts taking into account other similar projects in the central Namib. What about



cumulative impacts in the rest of the assessments? Earlier work has often excluded this, or mentioned it only in passing, because no-one really comprehended the scale of what was about to occur in the central Namib, or that it was to be irreversibly altered forever, and on a large scale concentrated in a particularly diverse section.

- Translocate/propagate the common plant species of the area for use in rehabilitation. I come across this a lot. Do you really think that it is realistic to propagate plants until the mining is finished? Every flaming mine in the country suddenly wants to establish a nursery which will damage more area, use more water, and be of questionable use until God knows when. The mines should rather be funding research into how to propagate important species, not trying to grow thousands of plants indefinitely. I regard the establishment of nurseries by individual mines as short-term, high-profile fixes useful for propaganda to make people think they are doing the right thing and that it is OK to just destroy what they like because they will plant it back later. Think this through the money can be spent far more constructively.
- It is imperative to have undisturbed offset areas in the same area of at least the same size and
 of similar habitat to the mining sites, to allow for ecosystem functioning, vegetative cover and
 natural movement and re-colonization of displaced fauna. All surrounding areas unaffected by
 mining activities should therefore be protected. Yes, I agree but who will guarantee the future
 safety of those areas once the mine is defunct? If some other deposit is found they will be
 mined.
- Odd that the impacts table for operation and decommissioning are the same, but that is the hazard of squashing these things into tables. No space for explanation
- A buffer zone of non-disturbance of at least 30 m along the main watercourses should be set aside. It is not clear to me what is meant
- According to the NFA, all trees, bushes and shrubs within 100 m of rivers, streams or other watercourses are protected. Yes, this is correct but earlier in the report it is not made clear
- Roads not in use should be lightly scarified if necessary (where compaction occurred) and flattened by the tyre/grid method (Mansfeld 2006). Recent research at Gobabeb has suggested that this may not be the best thing to do – and may cause more damage due to tracks made next to the roads by scarification vehicles. This needs to be considered on a case-to case basis, but entry points from main public access routes do need to be dealt with
- Topsoil should be removed only from the actual construction sites and not from habitats such as drainage lines. This assumes that drainage lines will be avoided, which is questionable unless you are only including the very largest.
- Topsoil should not be stockpiled but should be spread immediately onto newly landscaped sites that are prepared for rehabilitation. Such as has any thought been given to whether such sites will exist, or is this just a generic recommendation?



- Rehabilitation should commence soon after prospecting and mining are initiated, thus minimizing the area affected. I think a proper restoration plan should be in place prior to mining commencing one put together by a professional who will oversee the process over the life of the mine, and <u>trials</u> should start very early. *Ad hoc* rehab/restoration often has to be repeated, may cause additional damage, and some things that should start early are sometimes not realized. What to do with topsoil is a prime example. You can't just make general recommendations about topsoil it needs to be specifically planned for individual projects. You can, for instance, destroy or sterilize an additional area that would never have been disturbed in the first place by storing topsoil on it.
- Once trenches and holes have been filled and landscaped, the topsoil should be distributed on top to facilitate plant establishment. I assume this refers to exploration sites? Or are you planning to backfill?

Rehabilitation

Indigenous vegetation should be introduced where possible to improve the biodiversity (fauna and flora) of the area. Because of the low rainfall in the area and the periodically strong and hot bergwind (east-wind) conditions, rehabilitation on the exposed gravel plains will be difficult and is not assured. Topsoil should be used as seed source for ephemeral vegetation. Shade-netting should be applied to reduce the influence of strong winds. I think it is possible that these authors are making generalized recommendations based on experience in other ecosystems. I suggest that research into just how much of a seedbank topsoils are in the various central Namib habitats should be done before assuming that they will be useful. Again, some recent work has been done at Gobabeb. One of the biggest problems we have is that no data are available to base our recommendations on.

Biodiversity offset areas

Because of the difficulties predicted with vegetation rehabilitation, it is essential that other areas of at least the same habitat and size of the mine areas be set aside and protected from all human activities. See my comments above – just how long will the mining houses be able to guarantee that offset areas remain offset areas?

The impacts on the vegetation on site will be severe because all vegetation in the mine path will be destroyed. However, the impact will be local and **at this point in time** a vast portion of the landscape is still protected in the Namib-Naukluft National Park. Yes, but a vast proportion of that area is not close to Swakopmund and thus useful to the tourism industry. Furthermore, the area lies close to the Swakop River, making it different to most of the park when regarded as an access route to a resource for biota in the park.



From:"Mannheimer" <manfam@iafrica.com.na>To:<francois@softchem.co.za>Sent:14 November 2010 18:23Attach:Comments Omahola scoping.docSubject:two further comments

Dear Francois,

I am afraid that I have two comments on the scoping.

Regards,

Coleen

John & Coleen Mannheimer P.O. Box 193 Windhoek, Namibia Tel. + 264 61 233614 Fax + 264 61 233727 Coleen cell + 264 (0) 81 127 2820 John cell +264 (0) 81 147 4840 email <u>manfam@iafrica.com.na</u>

Large-scale use of underground water will affect the washes of the central Namib in the mining area. Has any modeling been done?

Are Dr L. Pretorius and Mr F. Friend qualified to study social and/or economic impacts of this project? My understanding is that they are neither social scientists or economists.



From:	"Riana Scholtz" <riana@scarab.com.na></riana@scarab.com.na>
To:	<francois@softchem.co.za></francois@softchem.co.za>
Sent:	15 November 2010 20:32
Subject:	Omahola scoping comments

Hi Francois,

Some comments on the Omahola Scoping report:

1. The proposed location of the plant and especially the waste rock dumps next to the C28 which is a very important tourism avenue. This will have a great visual impact and I would proposed that a specialist study be undertaken in this regard by a firm that has previous experience with this type of development in the Namib.

2. Only the Inca and TRS projects are mentioned and not the connecting route between the two areas. Will baseline and impact studies scrutinize the possible routes of transport between the two sites? This really doesn't fall under other general linear infrastructure that may be considered later on.

3. The use of local water for use in the plant: Will hydrological studies consider the possibility that groundwater at Inca/TRS may be a local basin in which waters draining from remote locations (possibly that which sustains the plants on the Welwitschia plains) collect, and that draining the local source may have far reaching effects?

4. What if the local basin is not recharged over a few seasons and run dry (the Namib did have exceptionally good rains for a few consecutive years before the previous rainy season) - where will water be sourced from then?5. It is mentioned that one of the benefits of the Omahola Project is that materials, services and labour will be sourced locally. A number of South African consultants were recruited for the completion of the Omahola EIA (even where local consultants are available and specialised), which does not support this statement.

6. Fauna: it is stated that "diversity and endemism (all species) are classified as low and average". This does not, however, reflect true at all on the situation with invertebrates of the central Namib plains. Also, will the faunal study include avifauna? With open brine ponds etc. this needs to be included.

7.It is mentioned that no Red Data plant species occur in the study area - only if the field survey was done after sufficient rain this can be determined for certain. If it was done after the recent poor rainy season of 2009/2010 this statement is questionable.

7. The social aspects of the Omahola project is a very important part of the study, especially in the wake of the findings of the recent SEA study. It should be considered to employ a social scientist with previous experience and expertise in the Erongo uranium situation, such as Marie Hoadley.

I appreciate your consideration of and feedback on these comments. Regards Riana

Riana Scholtz Principal Environmental Scientist Scarab Environmental & Geological Enterprises P.O. Box 1316 Swakopmund Namibia Cell (+264) (0)81 3286 255 Fax (+264) (0)88 61 7717 riana@scarab.com.na www.scarab.com.na

Disclaimer: The information in this message is confidential and may be legally privileged. It is intended solely for the addressee. If you are not the intended recipient, any disclosure, copying or distribution of the message, or any action or omission taken by you in reliance on it, is prohibited and may be unlawful. Please immediately contact the sender if you have received this message in error.



From:	"Michele Kilbourn Louw" <michelekl@mweb.co.za></michelekl@mweb.co.za>
To:	<francois@softchem.co.za></francois@softchem.co.za>
Sent:	16 November 2010 09:14
Subject:	FW: Reptile Scoping Report

Dear Mr Pretorius

You may publish my comments if you wish. I have nothing to retract. This response to your note should also be captured.

Neither the letter, signed by yourself, and directed to Mr Green on the 7th September 2010 nor the e-mail to him on the 15th November mention the Omahola Project by name. It is therefore understandable that I do not know of its title. I only know of Reptile, Tubas and INCA.

I apologise also for not making a habit of reading either the Reptile or Softchem websites, but I only started working in the area in 2010 so could not have thought to look for name changes.

In the aforementioned correspondence, Softchem is, together with Ms Kriel of Reptile, cited as the people with whom contact should be made regarding queries on the proposed activity. I chose to contact Francois Friend as the independent environmental assessor. I see nothing amiss in this respect.

I hope that this clarifies your concerns regarding my request for information.

Sincerely

Michele Kilbourn Louw

Manager: Environmental Swakop Uranium

+27 82 455 7601 (mobile) +27 11 840 7358 (office) <u>michele@swakopuranium.com.na</u> <u>michelekl@mweb.co.za</u> <u>Maximise resource use, minimise waste. Tread lightly, plan for closure.</u>

From: Leon Pretorius [mailto:leon@deepyellow.com.au] Sent: 15 November 2010 06:25 PM To: Michele Kilbourn Louw; francois@softchem.co.za Cc: Klaus (Reptile); 'Guddie Kriel' Subject: Reptile Scoping Report

Michele

What is this all about?

Deep Yellow's website is fully up to date with reports and name changes etc. The Omahola Project name dates from 2009, so your confusion is puzzling to me.

Just like you, consultants such as Softchem charge for their time, so in future if you are confused with detail about a project, its name or its detail then contact Reptile Uranium directly please.

As you will know by commenting on the public reports to Softchem, we need to add this into the report. So Francois please add this email into the comments list unless Michele wishes to retract hers?

Regards

Dr Leon Pretorius Managing Director Reptile Uranium Namibia (Pty) Ltd (Subsidiary of Deep Yellow Limited) Namibian Mob: +264-81-1228303 Australian Mob: +61-419-702616 Email: <u>leon@deepyellow.com.au</u> Website: deepyellow.com.au



From: Michele Kilbourn Louw [mailto:michelekl@mweb.co.za] Sent: Monday, 15 November 2010 6:55 PM To: francois@softchem.co.za Cc: Leon Pretorius; Klaus (Reptile); 'Guddie Kriel' Subject: RE: Reptile Scoping Report

Thanks Francois – I was in on both websites earlier but I missed the name of the project – I was looking for the other names that are usually mentioned – not Omahola!!

Regards

Michele

From: francois@softchem.co.za [mailto:francois@softchem.co.za] Sent: 15 November 2010 12:27 PM To: Michele Kilbourn Louw Cc: Leon Pretorius; Klaus (Reptile); Guddie Kriel Subject: Re: Reptile Scoping Report

Hi Michelle

The scoping report is available from either the Softchem webpage (under news items) or the RUN website (<u>www.reptileuranium.com</u> which takes you to the Deep Yellow website - see left hand bottom corner for the report).

Regards

Francois Friend Softchem Cell: 082 554 8900 Fax: 086 657 1612 <u>francois@softchem.co.za</u> Website: <u>www.softchem.co.za</u>

----- Original Message -----From: <u>Michele Kilbourn Louw</u> To: <u>francois@softchem.co.za</u> Sent: Monday, November 15, 2010 7:39 AM Subject: Reptile Scoping Report

Hello Francois

Could you please send me an electronic copy of the Reptile Uranium Scoping Report as per you latest correspondence to Norman Green, CEO of Swakop Uranium. I confess, I thought it was an EIA document.

Many thanks

Michele

Michele Kilbourn Louw Manager: Environmental Swakop Uranium

+27 82 455 7601 (mobile) +27 11 840 7358 (office) <u>michelekl@mweb.co.za</u> Maximise resource use, minimise waste. Tread lightly, plan for closure.



From:	"Stephanie Van Zyl" <stephanie@envirod.com></stephanie@envirod.com>
To:	<francois@softchem.co.za></francois@softchem.co.za>
Sent:	16 November 2010 17:00
Subject:	COMMENTS ON REPTILE URANIUM SCOPING REPORT

Dear Francois,

These are some comments on the above scoping study. I do realise that they are late; my apologies for that; I hope they can still be considered.

I am an environmental consultant with Enviro Dynamics. We by no means claim to know it all or to be perfect, but we are passionate about integrity and quality of EIA processes and we strive to that end for ourselves and collectively for a quality environmental assessment profession in Namibia. From this perspective please allow me to make a few comments on the Draft Scoping Report.

- 1. It is clear that your EIA process is based on the minimum requirements of Namibia's draft regulations. However, as a subsidiary of a listed company one would expect best practice rather than the bare minimum. This is the beginning of a very large operation; Reptile is introducing a high impact project into the Namibian landscape. For the sake of the reputation of the company a process which is based on best practice environmental principles would be more appropriate. This would include a well designed public disclosure process which reaches out to stakeholders and involves them from the outset to the end of the process, with proper feedback mechanisms.
- 2. The public participation process, which normally revolves around information conveyed at a public meeting/open day, seems to have been done after the fact. In my understanding the aim of the engagement process is to give stakeholders a chance to voice their concerns and issues. These then feed into the scoping process. Because the public meeting was done post-compilation of the scoping report, there is little in the report to show how the comments and concerns of stakeholders were used to guide the remainder of the Study. The scoping study should kick off with the public engagement process, then move on to identify issues, and from there the Plan of Study with TOR for the next phase is determined.
- 3. Section 2.3 gives the message "the project is in a national park but other mines have been allowed there too, so why shouldn't Reptile Uranium be allowed too". This is surely not a sound sustainability principle, to say that one builds your assumptions, values and decisions on what others did in the past. The principle of allowing the mine there compared to other land uses should be investigated.
- 4. There are no TORs provided for the specialist studies to be done. But then it seems as if some of these studies have already been done, yet they are not attached as appendices. On which basis were they done? Again, the issues identification process in the scoping report should lead to the TORs for the specialist studies.
- 5. It is not appropriate for Dr Leon Pretorius who represents the proponent to be involved in the specialist studies. The mine will naturally provide information to the consultant, but their staff should not be part of the EIA team. The reasons are obvious.



6. Specialists are needed for the areas of visual resources/sense of place, socioeconomics, and tourism - and they should be people qualified and experienced in these disciplines and should not be attached to the proponent.

7. There is no provision for an invertebrate study even though this area is Namibia's biggest invertebrate hotspot.

- 8. I would suggest someone to integrate the biological components of the study, i.e. an ecologist. The plant and animal life interact in their various habitats. How will the mine impact on these habitats, the various ecosystem services and the plant and animal communities' resilience to change..
- 9. There is no mention of an end land use. This being the Namib Naukluft Park probably means that the end land use, if the project is cleared, would be nature based tourism. This is an important point to be cleared with the authorities. Should the end land use be nature based tourism, then all the specialist studies will have to be geared towards ecological restoration and the goals for this set at this early stage.
- 10. Will an EMP be compiled with the EIA?

Regards,



Stephanie van Zyl Environmental Assessment Practitioner

Tel: +264 61 223 336 Fax: +264 61 307 437 Cell: +264 81 128 7002, 16 Seder Str, Suiderhof P.O.Box 4039, Windhoek, Namibia www.envirod.com



From:	"Michelle Yates" <mish@mweb.com.na></mish@mweb.com.na>
To:	<francois@softchem.co.za></francois@softchem.co.za>
Sent:	17 November 2010 09:41
Attach:	COMMENTS reptile scoping report.doc
Subject:	Comments on scoping report

Hello Francois

My apologies that these comments are a bit late but as you are aware I only found out about the availability of the scoping report on the 9th.

Regards Michelle

Michelle Pfaffenthaler

PO Box 7047 Swakopmund +264 64 40-6041 +264 81 208-9444 mísh@mweb.com.na

From: francois@softchem.co.za [mailto:francois@softchem.co.za] Sent: 09 November 2010 09:13 PM To: Michelle Yates Cc: Leon Pretorius; Klaus (Reptile); Guddie Kriel Subject: Re: Stakeholder announcement (IAP2)

Hi Michelle

Yes, we advertised in three local newspapers and send emails to the IAP list as it was on 19 October 2010.

Kind regards

Francois Friend Softchem Cell: 082 554 8900 Fax: 086 657 1612 francois@softchem.co.za Website: www.softchem.co.za

----- Original Message -----From: <u>Michelle Yates</u> To: <u>francois@softchem.co.za</u> Sent: Tuesday, November 09, 2010 9:06 PM Subject: RE: Stakeholder announcement (IAP2)

Dear Francois

I registered as an I&AP yet I did not get an invite to the public meetings. Did you only advertise in the newspaper (I have been out of the country) or did you send invites to the registered I&APs? I am disappointed to have missed the public meetings Regards Michelle

Michelle Pfaffenthaler

PO Box 7047 Swakopmund +264 64 40-6041 +264 81 208-9444 mísh@mweb.com.na



COMMENTS FROM THE PROPOSED OMAHOLE PROJECT SCOPING REPORT

15 November 2010

If implemented properly the environmental impact assessment process is supposed to highlight the positive and negative aspects of a project, bring together public perception and provide a mechanism through which modifications to the design can take place so that impacts are reduced to the bare minimum. The main reason is to ensure that Namibia does not bear the costs of the losses associated with mining whilst the shareholders maximize the gains. An EIA is not just a tick box exercise. I understand that there are always pressures from the client to get it done but if such a time consuming, relatively expensive process it to mean anything then it must be done properly. I know that the public is, in general, not very proactive when it comes to EIAs but this does not remove the need to give people the proper opportunity to respond. I feel that a ten day comment time for this scoping report was unreasonable. As a minimum two weeks should be given. I sincerely hope that this will be taken into account for the EIA phase of the project.

The scoping report is based on information from the pre-feasibility study. Consequently the level of detail regarding the proposed project is still low. Insufficient level of detail regarding a proposed project makes it impossible to accurately evaluate the impacts. <u>I trust that the environmental impact</u> assessment report will have a much higher level of detail (at least feasibility stage detail) because an environmental clearance should not be awarded based on prefeasibility information only.

A time line has not been included so it is not clear when Reptile Uranium (RUN) is planning on making the draft EIA available and when they intend to submit their application. In support of the previous statement I hope that the submission of the report will be aligned with completion for the feasibility report. Another factor that has not been described (but I hope has been considered) is the period of time required for proper baseline studies. For example fauna and flora fieldwork must be done during the wet season (approximately March), so they may take some time to be completed, particularly if it is a dry season.

The quality of the baseline data that is collected by specialists is one of the most important issues from I's perspective. There is not only an need to ensure that comprehensive studies are undertaken that portray the baseline condition of your sites (so that you can arrange the infrastructure in the best position to avoid very sensitive areas etc) but that the data collected can help too develop a better understanding of the region (feed into the central data base being collected by the SEMP office). From the process description in 10.1 it states that the specialist studies are still to be undertaken. Yet the specialists were at the open day. Was this to discuss their TOR or have they in fact done their studies already and were they there to present their findings? The descriptions in the scoping report do not present sufficient detail on which to base an assessment so I will assume that the studies are still to be completed and will be made available for public review at a later stage and that the findings of the studies will affect the final layout of the mine.

With respect to the <u>fauna and flora studies</u> there is an indication (from the very brief descriptions) that an outdated approach has been adopted, i.e. to look at pattern only i.e. what is found in the landscape in a snapshot of time) and to base fauna findings on desktop studies. <u>I hope that this is not the case and</u>



that attention has/will be paid to understanding ecosystem processes and to ecosystem services too. There is insufficient desktop information available for the Namib Desert. Insects and reptiles constitute two major groups that are characterised by high levels of endemism and are poorly known. Good baselines will be required for these groups and perhaps for arachnids and birds too. Will I&APs have an opportunity to look at the TOR for the specialist studies?

Why are there no geohydrological (and surface water) studies? <u>One of the findings of the strategic</u> environmental impact assessment (SEA) for the Namib Desert was that ground water will not be used for operating mines - that the mines will use desalinated water. If RUN proposes to use ground water they will need to present a water tight case for it to even be considered. They will need to show that extraction will not be detrimental to people and the natural environment. They will need to understand how the hydrology of the area works, how the impacted well fields are recharged, if they are linked to surface aquifers and springs, what fauna or flora might rely on it, what the potential pathways for pollution are, how backfilling the RTS pits will impact on water flow in the area etc. <u>I recommend that</u> a geohydrological study and model are developed as part of the baseline. In addition, a surface water study (catchment basin study) should also be commissioned to understand how flash flooding will impact on mining and how to design clean and dirty storm water systems to ensure that habitats down stream of the mine do not lose their source of water.

I think there that soil a soil study should also be commissioned. From an ecological perspective it is important to understand the soil, what should be set aside as topsoil, are there biological soil crusts, what are the nutrient values of the soil. Without it, it will be difficult to restore the environment after mining.

The visual, sensitive landscapes, soil studies etc cannot be done by Leon and Klaus. They work fr Reptile/Deep Yellow. Independent specialists are needed. Visual impact assessment is a sophisticated process that can really ad value to a report. It would be important to see a proper visual assessment in this report.

Three mining licenses are being sought yet this report does not address the TRS and Shiyela mine license areas in sufficient detail. Only one mine pit is shown in this report – the Incas pit. The impact of the other two its will also be significant and cannot be ignored. Will they all be mined at the same time or sequentially? What is the life of mine of each of the pits? What are the potential for phase 2 and three expansions of these pits?

With respect to the process descriptions, only the Incas plant is shown. There are no maps or diagrams for the satellite plant and its associated infrastructure or of how the satellite plant and main plant are linked. Will the fines be transferred by truck or conveyor or pipeline to the main plant. A 14km road or conveyor/pipe is a significant piece of infrastructure. What will happen to the water when the barren is dewatered? Will all of it be re-used or will there be a pollution dam or an evaporation dam? A description of mining at RTS is not provided so it is not clear how backfilling will happen. A similar statement was made with regard to backfilling at LHU but it was not underpinned with sufficient understanding of the process so they ran into a lot of trouble. For example where do you store the barren whilst waiting for a portion of the mine to become available for backfilling? <u>Much more detail is required before the impacts can even be considered.</u>



<u>The processing of iron is described</u> in 3.4.4. It states that iron from the Incas tailing facility will be treated but the <u>location of the plant is not shown on the maps</u> (or it was not clear to me). <u>A process</u> <u>description will be needed for this too</u> as well as an indication of what chemicals will be used, emissions generated etc.

Where will the plant be that treats the magnetite from Shiyela? The location of the plant (at Shiyela or at Inca) is not shown and nor is the process described. Is RUN planning to process the magnetite or to stockpile it? It appears to me that it is far too early to be applying for a mining license for this ore body as the lab work has not even been done. If I am missing something I apologize (I did not have much time to scrutinize this report).

As far as the Inca plant is concerned, there is no decontamination wash bay, no salvage yard – both important areas to manage radiation contamination as well as other materials. If the intention is to only evaluate impact with mitigation then it is important to have the mitigation measures in place.

To understand that full impact of this proposed operation it is essential that the various options for the infrastructure (water pipelines, powerlines, telecommunication lines) etc are considered as part of the scope of the EIA. If the intention is to submit separate reports for each of these issues then it is imperative that they are all submitted at the same time so that the cumulative impacts of all of these impacts can be assessed. (and not as separate reports submitted at different times)

More detail is needed on water usage. <u>Ideally a water balance (and not just a metallurgical water balance) should be included</u>. From an environmental point of view we would want to know how much water is being consumed, how much is being recycled, and how much is being discharged (evaporated, released to the environment).

More information is needed on the energy requirements and proposed technologies. How many MW of electricity, how many by diesel power (and size diesel storage tanks etc), whether or not cleaner technologies will be used at all. How much power will the RO water plant need? What about the EIA for that? Will it be included in the scope of the EIA?

The mine is taking place in a National Park. It is almost 100% certain that the post closure land use will be conservation, i.e. the need to commit to restoring functional ecosystems that can withstand the forces of water and wind for hundreds of years and can provide habitat for desert fauna and flora and future human activities. It is easy to make the commitment but does RUN actually know what they are committing to and how much it will cost? A mine closure plan (in as much detail as possible) should be developed during the design and planning phase and that not only socio-economic but biodiversity cost be factored in. If the mine closure liability is too high and RUN can never get closure (or sell the mines) then the socioeconomic and environmental might make the mine unviable.

I do not understand how the scoping report arrives at the conclusion made in section 4.4. when <u>the SEA</u> identifies that the cumulative impacts of numerous mines on local economies, infrastructure, townships etc will be significant. I trust that the EIA will go into much more detail and develop a substantive argument.



Deep Yellow has an environmental policy but it could not be downloaded from the website so I am not sure what the company has committed to. At the moment Deep Yellow's governance statement is" the Board strongly supports the establishment and ongoing development of a corporate governance framework to ensure that its practices are responsible and meet the needs of shareholders." As I could not download the board charter or the ethics and conduct policy I do not have a sense of what Deep Yellow stands for excep that is is interested only in the needs of its shareholders. Deep Yellow may have vast EPL holdings in Namibia but it is still not a proven company. The EIA should provide more detail about what the company is about. What kind of environmental commitments has it made? Is it a member of ICMM, does it subscribe to GRI reporting, does it subscribe to the equator principles, does it subscribe t the mitigation hierarchy, what is its position on biodiversity offsetting, will it implement ISO 14001, what is it doing about climate change. How dies it report on its carbon emissions. What is its current governance structure regarding sustainability issues (socio-economic and biodiversity). Namibian public should not have to entrust its most valuable resource (land) to a company just because it is listed.

The proposed methodology for the impact assessment is very thorough and if applied properly will provide valuable insight. However, it is very detailed and if applied to the full range of potential issues will be very time consuming and will make the report very long. The temptation therefore might be to lump a number of similar impacts together when in fact they should be assessed independently. I hope that this will not be done so that the value of the impact assessment is not lost.

I am not sure that I agree with approach that "evaluates impacts after mitigation measures have been taken into account' (8.5.8), although I can understand why this approach has been chosen. By comparing the impact before and after mitigation measures are put in place one is able to start calculating the environmental cost of operating. If the mitigation hierarchy is to be followed there may be value in showing the regulator where RUN has been able to avoid impacts, how it has gone about minimizing impact, and how it proposed to manage (and perhaps offset) the remaining impacts. Some kind of description of the impact before mitigation is in place (even if a full assessment is not done) might be valuable.

Section 5.2 is very exciting. The theory explained is great to see. What I am really looking forward to seeing in the EIA is how RUN looks at these various alternatives. <u>I hope that decent discussions are given for each of the alternatives considered and that the rational for going for one alternative over the other is described</u>. Most EIA reports usually just say "We considered alternative A and it was not feasible" there is no explanation into what was considered and why it was not feasible. The public do actually want to see this, particularly when considering demand, location and activity alternatives.

Section 5.3 should be written far more carefully. This issue should be looked at within the ambit of sustainable development. If the mine does not proceed other land uses (eco-tourism and conservation) will continue. These also have the potential to grow and employ people and have spin off effects on local and regional economies. Globally there is sufficient uranium (in the short term) to supply demand. A project should not get the go ahead just to disadvantage Namibia's competitors in the short term. How easy will it be for a new operation to secure funding if there is already enough uranium on the market? The true consequence of not proceeding can only be articulated once all the studies have been done, the cumulative impacts considered and the project considered within the most recent global markets.



The scoping report does not mention the need to look at the cumulative impacts of the Omahole project in the EIA (although reference is made t it in a meeting with DEA at the beginning of the process). In light of the recently published SEA and because there are regional baselines available, it is essential that RUN overlays its impact to establish where thresholds are exceeded (e.g. the recently released draft EIA for the proposed Husab project reveals that PM10 thresholds are exceeded in Arandis even with mitigation measures in place).

The list of issues raised at the public participation meetings is not included in the scoping report. So it is not possible to gauge how RUN has addressed / plan to address these issues.

CONCLUSION

I apologies that this submission is a couple of days late but I hope that my comments will add value. For those of us that live in this part of the world the sustainability of the desert is very important. Many of us are also directly dependent on mining for our livelihoods, so we are not opposed to a mining industry in this area. But for a win-win situation to prevail the bar has to be set at the highest level as far as environment and socio-economic parameters are concerned. This is what we wish to see in the EIA.



From:	"Theo Wassenaar" <awr@mweb.com.na></awr@mweb.com.na>
To:	<francois@softchem.co.za></francois@softchem.co.za>
Cc:	"'Leon Pretorius''' <leon@deepyellow.com.au>; <tnghitila@yahoo.com>; <joh.henschel@gobabeb.org></joh.henschel@gobabeb.org></tnghitila@yahoo.com></leon@deepyellow.com.au>
Sent:	17 November 2010 14:08
Subject:	RE: Stakeholder announcement (IAP2)

Dear Francois

My great apologies for sending in this late comment on the scoping report. As always the last few months of the year is an entire chaos, and your notice came and was promptly drowned by several other issues I had to deal with.

But that is bad style, because I know the EA process depends on "concerned citizens" doing their public duty, so I trust my late mail will find you receptive. Even if you do not incorporate these comments in your report, at least be aware of the fact that I tried! I am making these comments in my personal capacity, not as Research Manager at Gobabeb.

I have several comments, but want to stick with four main ones.

- 1. It is NOT advisable, and is indeed even unethical, to have the project proponent himself involved in any of the studies associated with the EA process. It is also against the law, as far as I understand it: you have to appoint an "independent" evaluator. I strongly advise you to do a proper independent study for the full EIA.
- 2. I am somewhat taken aback by the fact that you did not include invertebrates in your scoping. If there is one taxon amongst all those that make up the desert foodweb that needs to be well understood there it is the invertebrates as a group. I am sure you are aware that the proposed project will occur in the belt where the fog zone ends. This geographic location is likely one of the main drivers of the remarkable numbers of range-restricted invertebrate species associated with this ecotone. Ignoring this group in favour of plants and vertberates is, with all due respect, a matter of negligence. I strongly advise you to include a specialist invertebrate study in your EIA.
- 3. I acknowledge that there is a common misconception that impact assessments are just about species and not their functional roles. So typically an EIA lists the species that occur, and determine which ones are "red listed" or otherwise endangered. Obviously this is only part of the story. For example: among the small mammals there are no threatened species, yet the gerbils as a group very likely play a keystone role in the maintenance of productivity on the hyper-aid plains. So if the mine wants to avoid impacts, it is much better to lose a few individuals from a threatened species' population (particularly if it can be shown that its population dynamics won't be adversely affected by the loss) than losing a common but functionally very important group.

All specialist biodiversity studies should include not only the species and their likely occurrence in different habitats, but also identify their functional roles and specifically identify those species that play key (or keystone if you wish) or engineering roles. These are the species for which impacts should be intensively managed, because they are like the glue that holds the whole ecosystem together. I have not had the privilege of seeing your fauna report, so I have to assume that you have indeed included this functional, ecosystem-level aspect into your studies.

4. I want to pre-empt a finding from your vegetation studies: I am guessing that you will want to transplant some individual Welwitshcias, and perhaps offer sacrifical plants for further study to an educational or research institution. Note that it is HIGHLY unlikely that Welwithschia will ever be successfully transplanted, at least not in sufficient numbers to make any difference to the impact.



Mortality is likely to be very high. In addition: there are no institutions in Namibia with the resources to take advantage of sacrificial plants as study subjects. To offer plants for study without an explicit objective nor the opportunity to obtain a statistically meaningful data set would be a futile exercise. It should be made very clear that a population's persistence is a dynamically changing phenomenon, and it makes much more sense investing in a study to understand what factors affect it, as well as what the population's critical viability thresholds are, than to ad hoc transplant individual plants that are likely going to die.

Also, please be advised that there is an existing Welwithschia working group, currently in the formative phase, but with an overall objective of providing a forum for discussions and decisions on studies that need to be done on Welwitschia. Once this group is properly constituted, I would advise RUN to become a member of it. This will prevent ad hoc studies with little chance of success, and with little potential for solving the problem of managing impacts on this protected species. By the way, it is highly likely that its IUCN classification will be reviewed given all the potential impacts by several mines on this population.

Finally: I did register as an I&AP, but notice that my name is missing off the register. Kindly include it.

I hope you can use these comments in improving your EA reports and process.

Best regards

Theo Wassenaar BVSc, MSc, PhD. Pr.Sci.Nat.

4 von Eckenbrecher Street / PO Box 11997 Klein Windhoek Windhoek Namibia w: +264 61 230752 f: +264 61 230345 c: +264 81 1246033 *awr@mweb.com.na*

See some interesting things about dune forest restoration at http://www.ceru.up.ac.za/restoration/index.php



From:	"Theo Wassenaar" <awr@mweb.com.na></awr@mweb.com.na>
To:	<francois@softchem.co.za></francois@softchem.co.za>
Cc:	"'Leon Pretorius'" <leon@deepyellow.com.au>; "'Guddie Kriel'" <guddie@reptile.com.na>; "'Klaus</guddie@reptile.com.na></leon@deepyellow.com.au>
	(Reptile)''' <klaus@reptile.com.na></klaus@reptile.com.na>
Sent:	19 November 2010 07:46
Subject:	RE: Stakeholder announcement (IAP2)

Thanks Francois,

I am indeed well!

I thought it must have been something like that. No problems and thanks for the communication. Good luck with the rest of the process.

Best Theo

From: francois@softchem.co.za [mailto:francois@softchem.co.za] Sent: 18 November 2010 11:00 PM To: Theo Wassenaar Cc: 'Leon Pretorius'; Guddie Kriel; Klaus (Reptile) Subject: Re: Stakeholder announcement (IAP2)

Hi Theo

I trust you are well.

We are still in the process of culminating all comments received but just on your last point that was not part of the comments, namely the IAP register. Somehow a gremlin slipped into the register for your name on the register dated 30 September. However, this was corrected and you actually are on the register (you will see that is why you also received the stakeholder notifications on 19 October and 9 November respectively). Trust you find this in order.

Kind regards

Francois Friend Softchem Cell: 082 554 8900 Fax: 086 657 1612 <u>francois@softchem.co.za</u> Website: <u>www.softchem.co.za</u>



APPENDIX E

CONSOLIDATION OF STAKEHOLDERS' FEEDBACK AND PROJECT TEAM RESPONSES



No	Comments/issues/questions (presented verbatim)	Originator	Project team response		
	EIA process issues				
E01	Are Dr L. Pretorius and Mr F. Friend qualified to study social and/or economic impacts of this project? My understanding is that they are neither social scientists or economists.	Coleen Mannheimer	The comment is correct in that Dr Pretorius is a geochemist by graduate education and Mr Friend a chemical engineer. However, there is no substitute for experience and both parties have been involved in similar projects before, and in particular, with Stage One of Langer Heinrich Uranium where Dr Pretorius remains a director. In addition, the proponent of a project should have the best relevant knowledge on the social impacts (through workforce numbers) and economic implications of its own project.		
E02	Only the Inca and TRS projects are mentioned and not the connecting route between the two areas. Will baseline and impact studies scrutinize the possible routes of transport between the two sites? This really doesn't fall under other general linear infrastructure that may be considered later on.	Riana Scholtz	The project area is the complete EPL 3496 with three mining applications areas (Inca, TRS and Shiyela) within the project area.		
E03	It is mentioned that one of the benefits of the Omahola Project is that materials, services and labour will be sourced locally. A number of South African consultants were recruited for the completion of the Omahola EIA (even where local consultants are available and specialised), which does not support this statement.	Riana Scholtz	The statement does not imply that local consultants will be utilised irrespective of knowledge, experience and costs. RUN is an economic concern that values the environment and thus first establishes relevant specialised knowledge and experience when contracting consultants, and thereafter it becomes an economic consideration. Interesting to note Scarab Environmental and Geological Enterprises, of which Ms Scholtz is a principal, was offered the lead role in this process and declined it. Furthermore, Scarab was contracted to do the invertebrate study, that is, where possible and deemed appropriate Namibian companies and specialists are employed.		
E04	The social aspects of the Omahola project is a very important part of the study, especially in the wake of the findings of the recent SEA study. It should be considered to employ a social scientist with previous experience and expertise in the Erongo uranium situation, such as Marie Hoadley.	Riana Scholtz	Comment noted. Once the full impact is better understood based upon the bankable or definitive feasibility studies' findings, this will receive further attention. See also No E01.		
E05	It is clear that your EIA process is based on the minimum requirements of Namibia's draft regulations. However, as a subsidiary of a listed company one would expect best practice rather than the bare minimum. This is the beginning of a very large operation; Reptile is introducing a high impact project into the Namibian landscape. For the sake of the reputation of the company a process which is based on best practice environmental principles would be more appropriate. This would include a well designed public disclosure process which reaches out to stakeholders and involves them from the outset to the end of the process, with proper feedback mechanisms.	Stephanie van Zyl	The comment that the Namibian draft EIA regulations represent the bare minimum is factually incorrect. The draft regulations referred to were based completely on the South African EIA regulations of 2006. These in turn are based on international best practice environmental principles. RUN, as a complete subsidiary of Deep Yellow Limited, an Australian stock exchange listed company, must in any case therefore adhere to best practice principles based on shareholder and stock exchange demands and regulations. As presented in the scoping report, RUN commenced formal meetings with the MET, Parks, MME and other Namibian government bodies in late 2009 already, a year before holding its well-publicised public meetings, which were in the form of open discussion forums giving Windhoek and Swakopmund residents and IAPs six hours to hold discussions with RUN personnel and the various consultants.		
E06	The public participation process, which normally revolves around information conveyed at a public meeting/open day, seems to have been done after the fact. In my understanding the aim of the engagement process is to give stakeholders a chance to voice their concerns and issues. These then feed into the scoping process. Because the public meeting was done post-compilation of the scoping report, there is little in the report to show how the comments and concerns of stakeholders were used to guide the remainder of the Study. The scoping study should kick off with the public engagement process, then move on to identify issues, and from there the Plan of Study with TOR for the next phase is determined.	Stephanie van Zyl	There are only three main phases involved in a complete environmental impact assessment process, namely the scoping phase (that include stakeholder involvement, which in fact runs through all three phases) to determine and decide the final scope of an environmental impact assessment, the second phase. Thereafter a record of decision is issued by the relevant government authority. In practical terms, a draft scoping report is thus first issued to government and the public, whereafter the government and the public provide input, and then the final scoping report is issued should it be so required by the relevant government institution. The public engagement or participation process is part of this complete EIA process and is not an entity that stands on its own.		



No	Comments/issues/questions (presented verbatim)	Originator	Project team response
	EIA pr	ocess issues (continued	1)
E07	Section 2.3 gives the message "the project is in a national park but other mines have been allowed there too, so why shouldn't Reptile Uranium be allowed too". This is surely not a sound sustainability principle, to say that one builds your assumptions, values and decisions on what others did in the past. The principle of allowing the mine there compared to other land uses should be investigated.	Stephanie van Zyl	It is one's personal prerogative to sometimes read into statements what one would like to perceive it to be. However, in this case the reference to the other mines should logically be read in the context of the complete Section 2, which gives a factual description of the property and not the statement of principles.
E08	There are no TORs provided for the specialist studies to be done. But then it seems as if some of these studies have already been done, yet they are not attached as appendices. On which basis were they done? Again, the issues identification process in the scoping report should lead to the TORs for the specialist studies.	Stephanie van Zyl	The main reason why specialists are employed in EIA processes is that they will have the relevant education, knowledge and experience to provide informed decisions on the relevant aspects to be investigated within a certain project area. One should refrain from seeing an EIA process, inclusive of scoping and impact reports, to be an extensive paper exercise where the main aim of a process is to lead the reader to despair, frustration and/or confusion. Specialist studies are part of the environmental impact assessment report.
E09	It is not appropriate for Dr Leon Pretorius who represents the proponent to be involved in the specialist studies. The mine will naturally provide information to the consultant, but their staff should not be part of the EIA team. The reasons are obvious.	Stephanie van Zyl	The proponent's personnel is involved in the geology, topography, soils and land use capability aspects. This involvement is limited to the supply of information, as it is a logical decision that there should not be many or any others that would have the same level of knowledge. In the case of sensitive landscapes and visual impacts, knowledge on the relevant commitments envisaged by the proponent can also only logically be supplied by the proponent themselves. The same is true as discussed in No E01. The final composition of the information in the report is the responsibility of the EAP, which negates all involvement by the proponent in the final output apart from information supply. The fact of the matter is that these aspects mentioned above will always involve proponent input during an EIA process, the fact that this is presented openly to the public in Section 10 should provide ample evidence of an open and transparent public participation process.
E10	Specialists are needed for the areas of visual resources/sense of place, socio- economics, and tourism - and they should be people qualified and experienced in these disciplines and should not be attached to the proponent.	Stephanie van Zyl	Softchem is stated in Table 10.1 of the report as responsible for the assessment of sensitive landscapes and visual aspects. It is in the opinion of the EAP that they possess suitable experience in this regard, as Softchem was also the first entity to introduce the concept of <i>sense of place</i> in the Namibian EIA sphere during the first EIA conducted for a uranium mine in Namibia. The other comments are addressed in Nos E01 and E09.
E11	Will an EMP be compiled with the EIA?	Stephanie van Zyl	Yes, as per requirements in the draft regulations.
E12	If implemented properly the environmental impact assessment process is supposed to highlight the positive and negative aspects of a project, bring together public perception and provide a mechanism through which modifications to the design can take place so that impacts are reduced to the bare minimum. The main reason is to ensure that Namibia does not bear the costs of the losses associated with mining whilst the shareholders maximize the gains. An EIA is not just a tick box exercise. I understand that there are always pressures from the client to get it done but if such a time consuming, relatively expensive process it to mean anything then it must be done properly. I know that the public is, in general, not very proactive when it comes to EIAs but this does not remove the need to give people the proper opportunity to respond. I feel that a ten day comment time for this scoping report was unreasonable. As a minimum two weeks should be given. I sincerely hope that this will be taken into account for the EIA phase of the project.	Michelle Pfaffenthaler	Comments noted, however, the statement of ten days is factually incorrect. More than sufficient notification was provided with regard the Omahola project and in fact a total of 31 days was allowed for feedback on the scoping report. (Notification took place in relevant Namibian newspapers, website announcements and the placement of a notice board at the entrance to the activity area.) Neither the proponent nor the EAP can accept any responsibility for individuals that unfortunately missed any of the announcements. It should be remembered that the complete EIA process fits together as lego blocks with the subsequent dates for various sections, as this particular scoping phase, following one another. The relevant dates and phases were aptly advertised in the press and via the internet. Unfortunately it is not feasible to change response dates for singular responses, as one might be in a situation where these dates then change on a perpetual basis. Having said that, additional days were allowed to incorporate feedback, including from yourself.



No	Comments/issues/questions (presented verbatim)	Originator	Project team response		
	EIA process issues (continued)				
E13	The scoping report is based on information from the pre-feasibility study. Consequently the level of detail regarding the proposed project is still low. Insufficient level of detail regarding a proposed project makes it impossible to accurately evaluate the impacts. I trust that the environmental impact assessment report will have a much higher level of detail (at least feasibility stage detail) because an environmental clearance should not be awarded based on prefeasibility information only.	Michelle Pfaffenthaler	A scoping report is exactly as the name implies, namely a "scoping exercise" to ascertain the scope of the eventual environmental impact assessment. See also No E06.		
E14	A time line has not been included so it is not clear when Reptile Uranium (RUN) is planning on making the draft EIA available and when they intend to submit their application. In support of the previous statement I hope that the submission of the report will be aligned with completion for the feasibility report. Another factor that has not been described (but I hope has been considered) is the period of time required for proper baseline studies. For example fauna and flora fieldwork must be done during the wet season (approximately March), so they may take some time to be completed, particularly if it is a dry season.	Michelle Pfaffenthaler	Comments noted and already implemented (for example, invertebrate studies are to be commenced with the first suitable rainfall event in the project area). Time lines are very dynamic, especially during feasibility and impact studies. At present it is aimed to have the EIA completed by March 2011, however, this is off course dependent on various external factors as well, of which feedback from the relevant authority is an example.		
E15	The quality of the baseline data that is collected by specialists is one of the most important issues from I's perspective. There is not only an need to ensure that comprehensive studies are undertaken that portray the baseline condition of your sites (so that you can arrange the infrastructure in the best position to avoid very sensitive areas etc) but that the data collected can help too develop a better understanding of the region (feed into the central data base being collected by the SEMP office). From the process description in 10.1 it states that the specialist studies are still to be undertaken. Yet the specialists were at the open day. Was this to discuss their TOR or have they in fact done their studies already and were they there to present their findings? The descriptions in the scoping report do not present sufficient detail on which to base an assessment so I will assume that the studies are still to be completed and will be made available for public review at a later stage and that the findings of the studies will affect the final lavout of the mine.	Michelle Pfaffenthaler	Comments noted and yes, the specialist studies will be completed and available in the EIA report.		
E16	To understand that full impact of this proposed operation it is essential that the various options for the infrastructure (water pipelines, powerlines, telecommunication lines) etc are considered as part of the scope of the EIA. If the intention is to submit separate reports for each of these issues then it is imperative that they are all submitted at the same time so that the cumulative impacts of all of these impacts can be assessed. (and not as separate reports submitted at different times)	Michelle Pfaffenthaler	Comments noted and see also No E02.		
E17	I do not understand how the scoping report arrives at the conclusion made in section 4.4. when the SEA identifies that the cumulative impacts of numerous mines on local economies, infrastructure, townships etc will be significant. I trust that the EIA will go into much more detail and develop a substantive argument.	Michelle Pfaffenthaler	There are numerous economic principles discussed and evaluated in Section 4.4, not sure what conclusion is referred to?		



No	Comments/issues/questions (presented verbatim)	Originator	Project team response		
	EIA process issues (continued)				
E18	Deep Yellow has an environmental policy but it could not be downloaded from the website so I am not sure what the company has committed to. At the moment Deep Yellow's governance statement is" the Board strongly supports the establishment and ongoing development of a corporate governance framework to ensure that its practices are responsible and meet the needs of shareholders." As I could not download the board charter or the ethics and conduct policy I do not have a sense of what Deep Yellow stands for excep that is is interested only in the needs of its shareholders. Deep Yellow may have vast EPL holdings in Namibia but it is still not a proven company. The EIA should provide more detail about what the company is about. What kind of environmental commitments has it made?	Michelle Pfaffenthaler	See Deep Yellow's environmental policy. The environmental policy, along with OHS policy, ethics and conduct policy, Board Charter as well as various management plans can be viewed on Deep Yellow's website at www.deepyellow.com.au through the following tabs: Corporate> Governance>Corporate Governance Policies and then download the desired policy or plan. Alternatively, click on the 'Corporate' tab, click on the 'Governance' tab and then click on 'Download' to download the desired policy or plan.		
E19	Is it a member of ICMM, does it subscribe to GRI reporting, does it subscribe to the equator principles, does it subscribe t the mitigation hierarchy, what is its position on biodiversity offsetting, will it implement ISO 14001, what is it doing about climate change.	Michelle Pfaffenthaler	Deep Yellow is not a member of ICMM. ICMM's members are in essence the 18 largest global, established and operating mining companies. Deep Yellow is an advanced exploration company and therefore cannot at this time meet all of the ten principals required to join ICMM, as it is not currently a mining company and does not produce mining products. However, many of the ICMM's ten principals are embedded in Deep Yellow's current corporate governance and policy commitments. Deep Yellow does not at this time report under the Global Reporting Initiative (GRI) as it is not yet an established operating mining company. As a publicly listed company on the Australian Securities Exchange (ASX), Deep Yellow does lodge an annual report on company performance with the ASX and also makes this report available for public viewing on its company website at www.deepyellow.com.au. Deep Yellow is an advanced exploration company and therefore does not subscribe to the equator principles as it is not a member of the finance industry. The Equator Principles are a financial industry benchmark for determining, assessing and managing social and environmental risk in project financing. Deep Yellow has not at this time adopted a formal policy on the specifics of mitigation hierarchy, nor has it adopted a position on biodiversity offsetting as the fifth tier in the mitigation hierarchy. Deep Yellow does understand and acknowledges the value of the prioritised approach to the conservation of ecosystems and is committed to work within the guidelines established by the various regulatory agencies in Namibia and Australia, which includes consultation with community stakeholders, to arrive at optimum outcomes for the conservation of ecosystems in the implementation of its business plans. Deep Yellow is not ISO 14001 certified nor is it currently seeking certification due to its limited activity as an advanced exploration company. However, the company does incorporate many of the ISO 14001 guidelines in its environmental		



No	Comments/issues/questions (presented verbatim)	Originator	Project team response		
	EIA process issues (continued)				
E20	How dies it report on its carbon emissions. What is its current governance structure regarding sustainability issues (socio-economic and biodiversity). Namibian public should not have to entrust its most valuable resource (land) to a company just because it is listed.	Michelle Pfaffenthaler	Deep Yellow's most significant action to address the issue of carbon dioxide emissions and their likely effect on climate change is rooted in its core business objective; that is to transition to become a uranium production company and provide uranium for the generation of near-zero carbon dioxide emitting base-load electricity from nuclear power plants. As an advanced exploration company, Deep Yellow's carbon footprint is limited to the use of diesel fuel for vehicles used by the exploration staff and contractors' vehicles and drilling rigs. The Company complied with the Australian Federal Government's request to provide a 'carbon profile' of its exploration activities. Based on this profile, Deep Yellow was deemed to be exempt from 'mitigation action' in 2009 as its carbon emissions fell significantly below the then-current 'threshold'. As an exploration company, Deep Yellow continues to advance its formal policies. The company is currently drafting a community engagement policy. This policy will be based on the community engagement principles adopted by the Minerals Council of Australia, the World Nuclear Agency, the Australian Uranium Association and the Namibia Chamber of Mines. Additional policies will be added as the company continues its transition from an exploration to a development company.		
E21	The proposed methodology for the impact assessment is very thorough and if applied properly will provide valuable insight. However, it is very detailed and if applied to the full range of potential issues will be very time consuming and will make the report very long. The temptation therefore might be to lump a number of similar impacts together when in fact they should be assessed independently. I hope that this will not be done so that the value of the impact assessment is not lost.	Michelle Pfaffenthaler	Comment noted and appreciated. Note that the main EIA report will only reflect the overall aspect impact significance (thus not a very long report). However, the individual specialist reports are also included in the final EIA report (so no potential issues should be lost).		
E22	I am not sure that I agree with approach that "evaluates impacts after mitigation measures have been taken into account' (8.5.8), although I can understand why this approach has been chosen. By comparing the impact before and after mitigation measures are put in place one is able to start calculating the environmental cost of operating. If the mitigation hierarchy is to be followed there may be value in showing the regulator where RUN has been able to avoid impacts, how it has gone about minimizing impact, and how it proposed to manage (and perhaps offset) the remaining impacts. Some kind of description of the impact before mitigation is in place (even if a full assessment is not done) might be valuable.	Michelle Pfaffenthaler	Comments noted.		
E23	Section 5.2 is very exciting. The theory explained is great to see. What I am really looking forward to seeing in the EIA is how RUN looks at these various alternatives. I hope that decent discussions are given for each of the alternatives considered and that the rational for going for one alternative over the other is described. Most EIA reports usually just say "We considered alternative A and it was not feasible" there is no explanation into what was considered and why it was not feasible. The public do actually want to see this, particularly when considering demand, location and activity alternatives.	Michelle Pfaffenthaler	Comments appreciated and noted.		



No	Comments/issues/questions (presented verbatim)	Originator	Project team response			
	EIA process issues (continued)					
E24	Section 5.3 should be written far more carefully. This issue should be looked at within the ambit of sustainable development. If the mine does not proceed other land uses (eco-tourism and conservation) will continue. These also have the potential to grow and employ people and have spin off effects on local and regional economies. Globally there is sufficient uranium (in the short term) to supply demand. A project should not get the go ahead just to disadvantage Namibia's competitors in the short term. How easy will it be for a new operation to secure funding if there is already enough uranium on the market? The true consequence of not proceeding can only be articulated once all the studies have been done, the cumulative impacts considered and the project considered within the most recent global markets.	Michelle Pfaffenthaler	Comments noted. It should also be noted that eco-tourism is always a viable option, but that there are numerous occasions where unscrupulous tour operators impact on the environment via either scattering of wastes within the park, and/or by filling waste containers to such an extent that employment that could otherwise have been utilised to further other environmental concerns must now be employed for clean-up operations. However, unlike the tourist industry the mining industry is fully regulated in all facets of being good corporate Namibian citizens. The footprint of a mine is a miniscule fraction of the Namib Naukluft Park and if mitigated properly, will not detract from the overall vastness of the area not affected or disturbed by the mining operations. Eco-tourism and mining should be seen as complimentary activities – admittedly the former can continue on a sustainable basis forever, whereas mining has a finite life - but employs orders of magnitude more people, has a large impact on the Namibian economy and should lead to other sustainable businesses as is evidenced by the existing operations. Mines are businesses that are affected by global financial conditions – many of the proposed uranium mines were discovered in the 1970 and 1980s but not developed as they were not economically viable. One will only know what any project's potential is after completion of the full feasibility study.			
E25	The scoping report does not mention the need to look at the cumulative impacts of the Omahole project in the EIA (although reference is made t it in a meeting with DEA at the beginning of the process). In light of the recently published SEA and because there are regional baselines available, it is essential that RUN overlays its impact to establish where thresholds are exceeded (e.g. the recently released draft EIA for the proposed Husab project reveals that PM10 thresholds are exceeded in Arandis even with mitigation measures in place).	Michelle Pfaffenthaler	Comments noted. Cumulative impacts are addressed in Section 8 of the report and will also be assessed within specialist studies.			
E26	The list of issues raised at the public participation meetings is not included in the scoping report. So it is not possible to gauge how RUN has addressed / plan to address these issues.	Michelle Pfaffenthaler	Correct, not addressed in the draft scoping report. However, the feedback received on the scoping report (this document) will be included in the final report, with any feedback obtained from public meetings correctly presented in the EIA report.			
E27	Conclusion - I apologies that this submission is a couple of days late but I hope that my comments will add value. For those of us that live in this part of the world the sustainability of the desert is very important. Many of us are also directly dependent on mining for our livelihoods, so we are not opposed to a mining industry in this area. But for a win-win situation to prevail the bar has to be set at the highest level as far as environment and socio-economic parameters are concerned. This is what we wish to see in the EIA.	Michelle Pfaffenthaler	Comments noted.			
E28	It is not advisable, and is indeed even unethical, to have the project proponent himself involved in any of the studies associated with the EA process. It is also against the law, as far as I understand it: you have to appoint an "independent" evaluator. I strongly advise you to do a proper independent study for the full EIA.	Theo Wassenaar	See responses at Nos E01 and E09.			



No	Comments/issues/questions (presented verbatim)	Originator	Project team response
		Fauna issues	
F01	Fauna: it is stated that "diversity and endemism (all species) are classified as low and average". This does not, however, reflect true at all on the situation with invertebrates of the central Namib plains. Also, will the faunal study include avifauna? With open brine ponds etc. this needs to be included.	Riana Scholtz	This is according to Mendelsohn <i>et al.</i> (2002) and refers to vertebrate fauna. Avifauna will naturally form part of the fauna investigation and subsequent report. Given the scarcity of water, investigations are being made into dry tailings disposal and use of any excess brine for dust suppression and tailings encapsulation. No big open evaporation ponds are envisaged.
F02	There is no provision for an invertebrate study even though this area is Namibia's biggest invertebrate hotspot.	Stephanie van Zyl	Contrary to the impression of the proponent and the EAP that one would be able to conduct a partial assessment during the dry season, taking cognisance of the long periods of drought and "normal" weather conditions in the desert; they took heed of their invertebrate specialists' response in this regard and agreed with their specialist advice to postpone all invertebrate studies until such time that an acceptable wet period occurs again over the proposed mining licence areas. [Additional EAP comment: these studies will now take place from November 2010 after suitable rainfall in the area.]
F03	With respect to the fauna and flora studies there is an indication (from the very brief descriptions) that an outdated approach has been adopted, i.e. to look at pattern only i.e. what is found in the landscape in a snapshot of time) and to base fauna findings on desktop studies. I hope that this is not the case and that attention has/will be paid to understanding ecosystem processes and to ecosystem services too. There is insufficient desktop information available for the Namib Desert. Insects and reptiles constitute two major groups that are characterised by high levels of endemism and are poorly known. Good baselines will be required for these groups and perhaps for arachnids and birds too. Will I&APs have an opportunity to look at the TOR for the specialist studies?	Michelle Pfaffenthaler	Desktop studies provide the basis of any fieldwork and will form part of the investigation and final report by using many references for the area, including other EIA studies' findings, especially for important groups such as reptiles, for example, Valencia, Trekkopje, Rossing and Gobabeb studies. Ecosystem functioning is not particularly well researched for the area in question and is frequently based either on theory, or is academic of nature, or often speculation. And yes, it is important but requires long term research. True, and therefore all these recent scoping/EIA studies for the various prospecting/mining activities throughout the immediate area undoubtedly increases our knowledge of the area and could hopefully be used to the benefit of the environment. Yes, the vertebrate fauna study will include reptiles and birds. See also No E08
F04	I am somewhat taken aback by the fact that you did not include invertebrates in your scoping. If there is one taxon amongst all those that make up the desert foodweb that needs to be well understood there it is the invertebrates as a group. I am sure you are aware that the proposed project will occur in the belt where the fog zone ends. This geographic location is likely one of the main drivers of the remarkable numbers of range-restricted invertebrate species associated with this ecotone. Ignoring this group in favour of plants and vertberates is, with all due respect, a matter of negligence. I strongly advise you to include a specialist invertebrate study in your EIA.	Theo Wassenaar	Comments noted, however, study has commenced following favourable weather conditions (rain), see response in No F02.

No	Comments/issues/questions (presented verbatim)	Originator	Project team response		
	Fauna issues (continued)				
F05	I acknowledge that there is a common misconception that impact assessments are just about species and not their functional roles. So typically an EIA lists the species that occur, and determine which ones are "red listed" or otherwise endangered. Obviously this is only part of the story. For example: among the small mammals there are no threatened species, yet the gerbils as a group very likely play a keystone role in the maintenance of productivity on the hyper-aid plains. So if the mine wants to avoid impacts, it is much better to lose a few individuals from a threatened species' population (particularly if it can be shown that its population dynamics won't be adversely affected by the loss) than losing a common but functionally very important group. All specialist biodiversity studies should include not only the species and their likely occurrence in different habitats, but also identify their functional roles and specifically identify those species that play key (or keystone if you wish) or engineering roles. These are the species for which impacts should be intensively managed, because they are like the glue that holds the whole ecosystem together. I have not had the privilege of seeing your fauna report, so I have to assume that you have indeed included this functional, ecosystem-level aspect into your studies.	Theo Wassenaar	Yes, assessment included small mammal trapping, which was found to be very low in diversity and abundance. Because we know so little about the keystone species or what/which constitute such species this would require long term research and not within the scope of a scoping/EIA exercise. Yes, see also response in No F03.		
		Land use issues			
L01	There is no mention of an end land use. This being the Namib Naukluft Park probably means that the end land use, if the project is cleared, would be nature based tourism. This is an important point to be cleared with the authorities. Should the end land use be nature based tourism, then all the specialist studies will have to be geared towards ecological restoration and the goals for this set at this early stage.	Stephanie van Zyl	Important fact for all to remember is the small aerial impact of a mine versus its social/Namibian benefits (see also No E24). At closure the mine site will be rehabilitated and of course become part of the NNP again. The Inca site will have a chemical treatment plant and tailings storage facility. Given it is a single pit, backfilling will probably not be a viable option, so will probably be covered and contoured and over time become part of the landscape. No chemicals will be used at the TRS site and the shallow excavations backfilled as soon as practically possible. No chemicals will be used at Shiyela either and the pits will be backfilled as they progress.		
L02	The mine is taking place in a National Park. It is almost 100% certain that the post closure land use will be conservation, i.e. the need to commit to restoring functional ecosystems that can withstand the forces of water and wind for hundreds of years and can provide habitat for desert fauna and flora and future human activities. It is easy to make the commitment but does RUN actually know what they are committing to and how much it will cost? A mine closure plan (in as much detail as possible) should be developed during the design and planning phase and that not only socio-economic but biodiversity cost be factored in. If the mine closure liability is too high and RUN can never get closure (or sell the mines) then the socioeconomic and environmental might make the mine unviable.	Michelle Pfaffenthaler	See No L01. Clearly if the mine closure costs are too high, which are part of the costs of starting a project (environmental bonds and guarantees) in the bankable feasibility study, then the project will not be bankable and will not proceed.		
	Prod	cess (technical) issues			
P01	Three mining licenses are being sought yet this report does not address the TRS and Shiyela mine license areas in sufficient detail. Only one mine pit is shown in this report – the lncas pit. The impact of the other two its will also be significant and cannot be ignored. Will they all be mined at the same time or sequentially? What is the life of mine of each of the pits? What are the potential for phase 2 and three expansions of these pits?	Michelle Pfaffenthaler	See No L01. As stated, Inca is where the processing plant will be for both the Inca (uranium and iron/magnetite) and TRS (uranium only) ore and Shiyela is iron/magnetite only. Other questions and specifically expansions will be addressed by the BFS/DFS study and be dependent upon product prices at the time.		



No	Comments/issues/questions (presented verbatim)	Originator	Project team response		
	Process (technical) issues (continued)				
P02	With respect to the process descriptions, only the Incas plant is shown. There are no maps or diagrams for the satellite plant and its associated infrastructure or of how the satellite plant and main plant are linked. Will the fines be transferred by truck or conveyor or pipeline to the main plant. A 14km road or conveyor/pipe is a significant piece of infrastructure. What will happen to the water when the barren is dewatered? Will all of it be re-used or will there be a pollution dam or an evaporation dam?	Michelle Pfaffenthaler	See Nos F01, L01 and L02.		
P03	A description of mining at RTS is not provided so it is not clear how backfilling will happen. A similar statement was made with regard to backfilling at LHU but it was not underpinned with sufficient understanding of the process so they ran into a lot of trouble. For example where do you store the barren whilst waiting for a portion of the mine to become available for backfilling? Much more detail is required before the impacts can even be considered.	Michelle Pfaffenthaler	You are correct and obviously have an intimate working knowledge of LHU and its shortcomings and problems that others do not have. The old adage that one is always wisest after the event is probably of relevance here and RUN will seek to learn from other's past mistakes. Mine scheduling is presently being studied and will be an integral part of the BFS/DFS.		
P04	The processing of iron is described in 3.4.4. It states that iron from the Incas tailing facility will be treated but the location of the plant is not shown on the maps (or it was not clear to me). A process description will be needed for this too as well as an indication of what chemicals will be used, emissions generated etc.	Michelle Pfaffenthaler	The extraction of iron (magnetite) from the Inca tails will only be done if of economic benefit to Namibia and use in other uranium mines' processing plants. Presently ferric iron for such use is imported. If viable and required, the magnetite will be removed by simple magnetic separation equipment – no chemicals are involved but the product will contain some level of uranium and is only suitable for use in uranium processing plants, not for steel production.		
P05	Where will the plant be that treats the magnetite from Shiyela? The location of the plant (at Shiyela or at Inca) is not shown and nor is the process described. Is RUN planning to process the magnetite or to stockpile it? It appears to me that it is far too early to be applying for a mining license for this ore body as the lab work has not even been done. If I am missing something I apologize (I did not have much time to scrutinize this report).	Michelle Pfaffenthaler	Shiyela is a pure magnetite deposit, that is, no uranium present. This processing plant is based upon magnetic separation of the magnetite after crushing and milling to produce a pure iron product for export and local consumption in steel making and metallurgical processes. Processing, at least to extract the coarse raw magnetite, will occur on site. No chemicals are involved in this processing, that is, it is all physical beneficiation only. If the BFS/DFS is positive this project will have major strategic implications for Namibia.		
P06	As far as the Inca plant is concerned, there is no decontamination wash bay, no salvage yard – both important areas to manage radiation contamination as well as other materials. If the intention is to only evaluate impact with mitigation then it is important to have the mitigation measures in place.	Michelle Pfaffenthaler	Given your experience at LHU. you will know that decontamination of any equipment and materials involved with uranium exploration and mining is closely monitored and disposed of under international guidelines. Given the scale of the plant layout many of the essential and legislative small areas are not shown.		
P07	More information is needed on the energy requirements and proposed technologies. How many MW of electricity, how many by diesel power (and size diesel storage tanks etc), whether or not cleaner technologies will be used at all. How much power will the RO water plant need? What about the EIA for that? Will it be included in the scope of the EIA?	Michelle Pfaffenthaler	Installed power at Inca (including the desalination plant) is circa $2\overline{2}$ to 25 MW, pending a range of issues that remain to be resolved during the BFS/DFS, for example, sulphuric acid production, oxygen plant, desalination plant/s. Pending consistent NamPower supply, only emergency fossil fuel generation will be installed. Given proximity to Swakopmund minimal on-site fuel storage will be required. Installed power at TRS will be circa 5 MW but will be resolved during the BFS/DFS. Installed power at Shiyela is circa 20 to 25 MW but will be resolved during the BFS/DFS. With respect to cleaner technologies you are referring to, base-load power as you know cannot come from (Namibian) renewable sources. Hopefully Namibia will ultimately embrace nuclear energy. Desalination is required to utilise the pit water rather than evaporate it. The study into possible desalination of brine water from the buried palaeochannels is ongoing and will be an integral part of the BFS/DFS.		



No	Comments/issues/questions (presented verbatim)	Originator	Project team response
		Soil issues	
S01	I think there that soil a soil study should also be commissioned. From an ecological perspective it is important to understand the soil, what should be set aside as topsoil, are there biological soil crusts, what are the nutrient values of the soil. Without it, it will be difficult to restore the environment after mining.	Michelle Pfaffenthaler	The Inca site is basically devoid of topsoil given outcropping granite in most places, except for the ephemeral small drainages. TRS is on the banks of the active Tubas river system and the surface constitutes mainly hard gypsum where it has not already been severely impacted by the extraction of gypsum by other parties for more than fifty years already, for use in the agricultural and now cement production. Detail studies into soils, their storage and later use will be included in the BFS/DFS.
	Sensitive la	andscapes and visual as	pects
SL1	The proposed location of the plant and especially the waste rock dumps next to the C28 which is a very important tourism avenue. This will have a great visual impact and I would proposed that a specialist study be undertaken in this regard by a firm that has previous experience with this type of development in the Namib.	Riana Scholtz	Given the location of the Inca deposit (immediately south on the C28) it is not possible to move the mining operation, but the area is not pristine having been mined in the past and the C28 is a 24-hour busy road carrying heavy transport, a pipeline, power line and fibre-optic network. Once away from this road the NNP retains its sense of place. Sensitive landscapes and visual aspects will be evaluated within the environmental impact assessment phase of the project. Se also No E10.
SL2	The visual, sensitive landscapes, soil studies etc cannot be done by Leon and Klaus. They work fr Reptile/Deep Yellow. Independent specialists are needed. Visual impact assessment is a sophisticated process that can really ad value to a report. It would be important to see a proper visual assessment in this report.	Michelle Pfaffenthaler	See responses in Nos E09 and E10. In addition, Dr Pretorius commenced working at Rossing, Trekkoppje and various Namibian calcrete exploration sites in 1971; has been involved with LHU for the past 13 years and is a registered practicing environmental scientist, and as such has an ethical responsibility to comply with the term 'independent' regardless of project involvement – responsibility for compliance ultimately lies with the owner, not the consultant.
		Vegetation issues	
V01	I would have suggested that studies done for other uranium mines in the area could have been consulted, eg Burke at Rössing.	Coleen Mannheimer	Reports consulted but not necessarily found relevant or included in the report were Digby Wells and Associates (2008) - Valencia Uranium Mine, fauna and flora report; Strohbach M (2009) - Langer Heinrich Uranium Mine Expansion, vvegetation map, description and Phase 2 biodiversity description; Van Rooyen N and Van Rooyen MW (2004) - Vegetation of the Langer Heinrich area; Metago Consulting Engineers (2009) - Rössing South (Husab), as well as detailed section on <i>Welwitschia mirabilis</i> ; Nimham Shand (2008) - Rössing Uranium Expansion; and Metago Consulting Engineers (2010) - Omitiomire Copper Mine. However, we would appreciate any reports and/or references from you and your colleagues working on similar projects, for example, for specialist flora reports of Trekkopje, Swakop Uranium (Rossing South or Husab), Rossing Uranium Expansion, Etango, etc.
V02	It would have helped to have a map, or even better a satellite image of the area available in the report.	Coleen Mannheimer	The specialist reports are part of the EIA report where all maps are included.
V03	No indication of affected area/s ie: pits, dumps, leach pads, roads etc. I think, in the light of my experience, it is necessary to not only know the expected footprint, but also an indication of the collateral area of damage potential. You may say that this reports indicates sensistive areas – but how can they score the proportion of undisturbed similar areas if they don't know the footprint?	Coleen Mannheimer	The footprint of the mine was not finalised at the time of writing the report and will be part of the BFS/DFS. Where possible the present studies will dictate the location of the various activities although the location of the deposit is central to the peripheral activities.



No	Comments/issues/questions (presented verbatim)	Originator	Project team response
	Veget	ation issues (continued))
V04	I found some of the assignment of species to growth forms odd (eg. Euphorbia phylloclada), but these are always open to interpretation, and these authors are not that familiar with the area I presume.	Coleen Mannheimer	We agree that <i>Euphorbia phylloclada</i> should rather fall in the forb (perennial herb) category. The growth form categories are not explicitly defined and therefore, as you mention, the assignments of species may be open to interpretation. [Additional EAP comment: both Dr and Prof Van Rooyen are quite familiar with the area.]
V05	The authors have implied in one instance that because, according to the Forest Act, no person may cut, destroy or remove any tree, bush or shrub that occurs in or within 100 m of a river, stream or watercourse without authorization only permission is needed in the case of protected species. This is not correct.	Coleen Mannheimer	Will rephrase – see also No V17.
V06	I thought that Orthanthera albida was endemic. If new information is available I would be glad to get it (and I am not being sarcastic, I am interested).	Coleen Mannheimer	The species is indicated as near-endemic to Namibia by Craven and Loots (2002) and is therefore listed as such in the report (p 38). Endemic is a relative concept that is scale related and refers to a taxon limited in its range to a specified geographical range, for example, Namibia. When a taxon is marginally present elsewhere it is called a 'near-endemic'. In the case of <i>Orthantera albida</i> it means that the species may occur outside Namibia. We feel that the term 'near-endemic' is rather worthless. Even Maggs, Craven and Kolberg (1998) stated in their article "We have not considered near-endemics here, as there is uncertainty about the extent of their distribution in neighbouring countries".
V07	I was surprised that no C saxicola was found on dykes – I always find it there.	Coleen Mannheimer	We found <i>Commiphora saxicola</i> on the more prominent rocky outcrops in the area. Most of the low ridges and dykes in the area are inconspicuous and very species-poor.
V08	"8. Salsola tuberculata shrubland of river terraces and undulating plains and footslopes " - what do they mean by footslopes? - this is a term that I have always associated with koppies and mountains.	Coleen Mannheimer	The footslope is the terrain morphological unit between the midslope of a mountain/hill/koppie and the valley bottom ('voorskootveld').
V09	"Suitable habitat adjacent to known rare plant populations has a high probability of being colonized." I am not sure what they mean?	Coleen Mannheimer	Suitable habitat (in terms of similar topography, geology, soils) adjacent to known rare plant populations has a high probability of being colonized by new individuals of that species and may ultimately result in a new population. Therefore such habitat should be conserved and thoroughly surveyed.
V10	"6. Plant community species richness The species-richness (or number of species per plot or vegetation type) will depend on the region, climate, topography, ecosystem and degree of transformation. The assessment consists of determining the number of species per vegetation type of a specific habitat, e.g. ridge, and compared to the number of species found in a relative unspoilt (pristine) vegetation type of the same habitat type. The sensitivity scale ranges from low to high." I saw no indication that such a comparison had been made or discussed. Not that I regard it as a problem – in the central Namib they are basically all pristine, but then it is not valid to say that this was used to assign a score.	Coleen Mannheimer	See Page 40 of report where a comparison is given. The comparison refers mainly to Robinson (1976) whose work was done in the same general area in apparently a moist season. We did our survey in the dry season shortly after exceptionally hot and strong bergwinds removed almost all signs of annual grasses and forbs, but nevertheless the number of species per community compares fairly well with Robinson's data. If we do a follow-up survey in this coming summer (depending on rain) our species list should increase significantly. In terms of the scoring, a community with a higher than the mean species richness for the area may be considered as 'more sensitive' or worthy of conservation and it is assigned a higher score than a species-poor community. The species richness is in many instances also related to the habitat/terrain type.
V11	"Degree of fragmentation/connectivity/offset areas: medium-high" Can one really clump these and expect laymen (and most of the people who will use this information are laymen) to understand that this is a cumulative assessment – I doubt it	Coleen Mannheimer	Agree. The concept of biodiversity offset areas should rather be addressed separately and not as part of the sensitivity issue.



No	Comments/issues/questions (presented verbatim)	Originator	Project team response
	Veget	ation issues (continued)	
V12	"Sensitivityof washes – medium." Constraints of ecological processes: I think that more discussion should be made of the potential collateral damage that could occur downstream if washes are destroyed on a large scale. In fact, I suggest that, where applicable, there should be more discussion of potential cumulative effects of all the impacts taking into account other similar projects in the central Namib. What about cumulative impacts in the rest of the assessments? Earlier work has often excluded this, or mentioned it only in passing, because no-one really comprehended the scale of what was about to occur in the central Namib, or that it was to be irreversibly altered forever, and on a large scale concentrated in a particularly diverse section.	Coleen Mannheimer	The sensitivity of riverbeds and washes (community 4) is rated as "medium-high" – meaning a sensitivity rating, which could warrant that specific habitats should be excluded from any development. This was indeed our recommendation that 'riverbeds' be excluded. We agree that it is necessary to synthesise all the findings of the biophysical assessments, especially in terms of sensitivity and impacts, (for example, a comprehensive biodiversity management plan is part of the scoping/EIA process in the RSA). We could not agree more about an assessment of the regional cumulative impact of all the mines. However, should this not be addressed/coordinated at a higher level, for example, MME and MET? The MME commissioned SEA is a prime example of their involvement and concern already.
V13	Translocate/propagate the common plant species of the area for use in rehabilitation. I come across this a lot. Do you really think that it is realistic to propagate plants until the mining is finished? Every flaming mine in the country suddenly wants to establish a nursery – which will damage more area, use more water, and be of questionable use until God knows when. The mines should rather be funding research into how to propagate important species, not trying to grow thousands of plants indefinitely. I regard the establishment of nurseries by individual mines as short-term, high-profile fixes useful for propaganda to make people think they are doing the right thing and that it is OK to just destroy what they like because they will plant it back later. Think this through – the money can be spent far more constructively.	Coleen Mannheimer	It is also not going to help if nothing is done. We have seen projects where re- establishment of vegetation was successful, but that was done in mesic environments. We agree that restoration of the desert flora landscape will be a costly and challenging exercise and should be addressed by experts. The mine has indicated that it may fund relevant research and is already doing so at the exploration stage and will continue until possible development in two to three years time.
V14	It is imperative to have undisturbed offset areas in the same area of at least the same size and of similar habitat to the mining sites, to allow for ecosystem functioning, vegetative cover and natural movement and re-colonization of displaced fauna. All surrounding areas unaffected by mining activities should therefore be protected. Yes, I agree – but who will guarantee the future safety of those areas once the mine is defunct? If some other deposit is found they will be mined.	Coleen Mannheimer	A legislative issue for Namibia. see also No E24.
V15	Odd that the impacts table for operation and decommissioning are the same, but that is the hazard of squashing these things into tables. No space for explanation.	Coleen Mannheimer	Mitigation/rehabilitation should start from the construction phase through to decommissioning. However, the evaluation and significance rating do differ slightly between the different phases. The specialists had to use the same template and scoring system, but in the end the process is still very subjective. Ultimately the decommissioning will be dependent upon the BFS/DFS findings.
V16	A buffer zone of non-disturbance of at least 30 m along the main watercourses should be set aside. It is not clear to me what is meant	Coleen Mannheimer	The watercourse (and any other feature of significance or sensitivity) should be protected by a buffer zone. A distance of 30 m is usually recommended but is very arbitrary, but should probably be more to conform with the protected area of NFA. It is, however, inevitable that certain water courses will be destroyed if they transect the proposed open-cast mining operations.
V17	According to the NFA, all trees, bushes and shrubs within 100 m of rivers, streams or other watercourses are protected. Yes, this is correct – but earlier in the report it is not made clear.	Coleen Mannheimer	Yes you are correct and thank you for alerting us



No	Comments/issues/questions (presented verbatim)	Originator	Project team response
	Veget	ation issues (continued)	
V18	Roads not in use should be lightly scarified if necessary (where compaction occurred) and flattened by the tyre/grid method (Mansfeld 2006). Recent research at Gobabeb has suggested that this may not be the best thing to do – and may cause more damage due to tracks made next to the roads by scarification vehicles. This needs to be considered on a case-to case basis, but entry points from main public access routes do need to be dealt with.	Coleen Mannheimer	RUN is at the forefront of exploration track and drill-site rehabilitation. It previously employed three environmental scientists until Ms Scholtz left (to start up her own business) and now has two environmental scientists that work closely with Gobabeb and its research students. RUN also has the enviable achievement of getting MET's recent sign-off on complete rehabilitation of an area it had completed 3,999 drill holes on. After drilling, rehabilitation is the single biggest cost item for RUN and it prides itself upon its achievements in this field. Rehabilitation occurs as soon as practicably possible and in most instances is immediate. By appointment anyone is welcome to inspect this operation carried out by the Topnaar Community and two other local contracting companies. All work is done by hand, not mechanically.
V19	Topsoil should be removed only from the actual construction sites and not from habitats such as drainage lines. This assumes that drainage lines will be avoided, which is questionable unless you are only including the very largest.	Coleen Mannheimer	Drainage lines were identified as sensitive habitats and the recommendation was that the well-defined watercourses be excluded from mining, except where they are part of the mining operation/location of the deposit.
V20	Topsoil should not be stockpiled but should be spread immediately onto newly landscaped sites that are prepared for rehabilitation. Such as has any thought been given to whether such sites will exist, or is this just a generic recommendation?	Coleen Mannheimer	This goes without saying, but this is dictated by the operational and mining schedule and will obviously not apply to the initial phase when such sites are not available, but as soon as mining is in full swing, sites to be rehabilitated should always be available.
V21	Rehabilitation should commence soon after prospecting and mining are initiated, thus minimizing the area affected. I think a proper restoration plan should be in place prior to mining commencing – one put together by a professional who will oversee the process over the life of the mine, and trials should start very early. <i>Ad hoc</i> rehab/restoration often has to be repeated, may cause additional damage, and some things that should start early are sometimes not realized. What to do with topsoil is a prime example. You can't just make general recommendations about topsoil – it needs to be specifically planned for individual projects. You can, for instance, destroy or sterilize an additional area that would never have been disturbed in the first place by storing topsoil on it.	Coleen Mannheimer	The current report was in no way intended as a rehabilitation plan. A full rehabilitation plan should be proposed by professionals in the field, as mentioned earlier. Stockpiling is not recommended and as indicated should only be done in the initial phase. When done, it should be stockpiled on areas to be destroyed by mining in the near future. We think that restoration of the biota (especially vegetation) in the study area, after an area has been mined, will be extremely difficult because of the harsh environment but is already being studied. See also No V18.
V22	Once trenches and holes have been filled and landscaped, the topsoil should be distributed on top to facilitate plant establishment. I assume this refers to exploration sites? Or are you planning to backfill?	Coleen Mannheimer	See No V18 for exploration activities and Nos P01, P03 and P04 for operational activities.
V23	Rehabilitation - Indigenous vegetation should be introduced where possible to improve the biodiversity (fauna and flora) of the area. Because of the low rainfall in the area and the periodically strong and hot bergwind (east-wind) conditions, rehabilitation on the exposed gravel plains will be difficult and is not assured. Topsoil should be used as seed source for ephemeral vegetation. Shade-netting should be applied to reduce the influence of strong winds. I think it is possible that these authors are making generalized recommendations based on experience in other ecosystems. I suggest that research into just how much of a seedbank topsoils are in the various central Namib habitats should be done before assuming that they will be useful. Again, some recent work has been done at Gobabeb. One of the biggest problems we have is that no data are available to base our recommendations on.	Coleen Mannheimer	Noted. Nothing will happen if nothing is done. Shade-netting for example, proved to be reasonably successful in creating more stable habitat in fairly dry and windy conditions along the arid west coast of RSA, but definitely very useful on exposed sand dunes in high rainfall situations.



No	Comments/issues/questions (presented verbatim)	Originator	Project team response
	Veget	ation issues (continued))
V24	Biodiversity offset areas - Because of the difficulties predicted with vegetation rehabilitation, it is essential that other areas of at least the same habitat and size of the mine areas be set aside and protected from all human activities. See my comments above – just how long will the mining houses be able to guarantee that offset areas remain offset areas?	Coleen Mannheimer	This seems to be a repeat of No V14 and comments on it are relevant as is No E22, that is, the vast majority of the NNP will remain unaffected by the mining activities.
V25	The impacts on the vegetation on site will be severe because all vegetation in the mine path will be destroyed. However, the impact will be local and at this point in time a vast portion of the landscape is still protected in the Namib-Naukluft National Park. Yes, but a vast proportion of that area is not close to Swakopmund and thus useful to the tourism industry. Furthermore, the area lies close to the Swakop River, making it different to most of the park when regarded as an access route to a resource for biota in the park.	Coleen Mannheimer	It is debatable what "close to the Swakop River" means. All drainage in the affected areas are away from the Swakop River not towards it. This statement needs clarification by the writer at the EIA stage. Maybe she meant it is close to Swakopmund and therefore useful to the tourism industry?
V26	It is mentioned that no Red Data plant species occur in the study area - only if the field survey was done after sufficient rain this can be determined for certain. If it was done after the recent poor rainy season of 2009/2010 this statement is questionable.	Riana Scholtz	On Page (i) in the Executive Summary; Page. 1 in the Introduction; Page. 5 under Methodology; and Page 7 in Chapter 4 on the vegetation types on site it is clearly stated the limitations under which the study was done, for example, time of year and extremely dry and windy conditions preceding the vegetation survey, and that the list of plant species should be seen as preliminary, and that follow-up surveys should be done under more favourable conditions.
V27	I would suggest someone to integrate the biological components of the study, i.e. an ecologist. The plant and animal life interact in their various habitats. How will the mine impact on these habitats, the various ecosystem services and the plant and animal communities' resilience to change.	Stephanie van Zyl	The suggestion is noted. The vegetation study was done by ecologists, with speciality in vegetation ecology. The TOR for the vegetation study did not include an integration of all biological components (see Scope of Report on Page v of the vegetation report). However, it should be noted that the integration of the biological components suggested by the IAP will be a "desktop" integration, based on ecological principles – which is exactly what the IAP criticizes in No V28. We agree that it is necessary to synthesize all the findings of the biophysical assessments, especially in terms of sensitivity and impacts. However, such a biodiversity integration of all biophysical specialist studies and is naturally an aspect that needs to be addressed and included in the final EIA and EMP for the study area. We would also welcome an assessment of the regional cumulative impact of all the mines in the Swakopmund area, but it is probably an issue to be addressed/coordinated at a higher level (MME and MET).
V28	With respect to the fauna and flora studies there is an indication (from the very brief descriptions) that an outdated approach has been adopted, i.e. to look at pattern only i.e. what is found in the landscape in a snapshot of time) and to base fauna findings on desktop studies. I hope that this is not the case and that attention has/will be paid to understanding ecosystem processes and to ecosystem services too. There is insufficient desktop information available for the Namib Desert. Insects and reptiles constitute two major groups that are characterised by high levels of endemism and are poorly known. Good baselines will be required for these groups and perhaps for arachnids and birds too. Will I&APs have an opportunity to look at the TOR for the specialist studies?	Michelle Pfaffenthaler	The notion of outdated approach is debatable. In any ecological study it is essential that a baseline study be done on all biophysical aspects of a site before the study progresses to the functions and dynamics associated with ecosystems, which is naturally a long-term study. You have to do to an inventory of all biophysical parameters to know what you are working with and what are the limitations to a study. It is a common limitation in many ecosystem research projects in the past that research is initiated at the ecosystem level before the basic building blocks of the system is known. As mentioned in reply to No V27, such a biodiversity integration study or biodiversity management plan can only be done following completion of all biophysical specialist studies. Although the TOR for the vegetation study did not include an integrated of all biological components, it is agreed that an integrated biophysical report or management plan be included in the final EIA and/or EMP for the study area.



No	Comments/issues/questions (presented verbatim)	Originator	Project team response
	Veget	ation issues (continued)	
V28	I want to pre-empt a finding from your vegetation studies: I am guessing that you will want to transplant some individual Welwitshcias, and perhaps offer sacrifical plants for further study to an educational or research institution. Note that it is HIGHLY unlikely that Welwitshcha will ever be successfully transplanted, at least not in sufficient numbers to make any difference to the impact. Mortality is likely to be very high. In addition: there are no institutions in Namibia with the resources to take advantage of sacrificial plants as study subjects. To offer plants for study without an explicit objective nor the opportunity to obtain a statistically meaningful data set would be a futile exercise. It should be made very clear that a population's persistence is a dynamically changing phenomenon, and it makes much more sense investing in a study to understand what factors affect it, as well as what the population's critical viability thresholds are, than to ad hoc transplant individual plants that are likely going to die.	Theo Wassenaar	We are fully aware of the status and sensitivity regarding <i>Welwitschia mirabilis</i> , as well as the perceived lack of success in transplanting plants, especially mature plants. However, we could not find any scientifically documented research information where transplanting of <i>Welwitschia mirabilis</i> was attempted, with indications of the success rate. However, under cultivation in nurseries, it is reported that there are apparently no serious limitations in the transplanting of juvenile plants. On Pages 57 - 59 of the report (chapter on Impacts), it is recommended, and we quote: "If necessary, rare, protected and endemic plant species should be translocated/relocated to suitable areas under specialist supervision. However, uprooting and translocating desert plants usually meets with little success, especially in the case of <i>Welwitschia mirabilis</i> . Transplanting of <i>Welwitschia mirabilis</i> is consequently not recommended. Furthermore, it is clearly indicated in the report (Pages 56 and 76) that, and we quote: "The presence of the protected species <i>Welwitschia mirabilis</i> , especially in the lnca site, is cause for concern. The current exploration drilling occurs in that community and special measures should already be taken to conserve this species, especially because transplanting of mature species are protected as conservation of only one population sof rare plant species are protected as conservation of only one population sof rare plant species are protected as conservation of only one population special mark undesirable consorvation measure since the translocation may result in rapid changes in the species itself and translocations are expensive and arely successful. On Page 48, the impact on the <i>Arthrærua leubnitziae-Welwitschia mirabilis</i> sparse dwarf shrublant is. Rare species may not be removed/destroyed without a permit. Research in the interest of all people and mining companies to do a research indicated as medium, meaning that it has a sensitivity rating that is tangible and sufficiently important t



No	Comments/issues/questions (presented verbatim)	Originator	Project team response
	Veget	ation issues (continued)	
V29	Also, please be advised that there is an existing Welwithschia working group, currently in the formative phase, but with an overall objective of providing a forum for discussions and decisions on studies that need to be done on Welwitschia. Once this group is properly constituted, I would advise RUN to become a member of it. This will prevent ad hoc studies with little chance of success, and with little potential for solving the problem of managing impacts on this protected species.	Theo Wassenaar	We are aware of the Welwitschia Study Group, consisting of government, NGO's and private consultants. Although not included in the vegetation report it was suggested to RUN management that cooperation with the group be considered.
V30	By the way, it is highly likely that its IUCN classification will be reviewed given all the potential impacts by several mines on this population.	Theo Wassenaar	We would support such a review.
		Water issues	
W01	Large-scale use of underground water will affect the washes of the central Namib in the mining area. Has any modeling been done?	Coleen Mannheimer	A project developing a model to determine the possible sustainable use of the groundwater is currently underway.
W02	The use of local water for use in the plant: Will hydrological studies consider the possibility that groundwater at Inca/TRS may be a local basin in which waters draining from remote locations (possibly that which sustains the plants on the Welwitschia plains) collect, and that draining the local source may have far reaching effects?	Riana Scholtz	Studies are in the process of being completed to determine the possibility of sustainable use of groundwater. These studies incorporate all environmental components (localised basins and water usage by plants included) when modeling the system.
W03	What if the local basin is not recharged over a few seasons and run dry (the Namib did have exceptionally good rains for a few consecutive years before the previous rainy season) - where will water be sourced from then?	Riana Scholtz	Various water supply options are being assessed. The sustainable use of groundwater is just one of these. The hydrogeological study has incorporated the variability of rainfall in the region into the detailed model of the system.
W04	Why are there no geohydrological (and surface water) studies? One of the findings of the strategic environmental impact assessment (SEA) for the Namib Desert was that ground water will not be used for operating mines - that the mines will use desalinated water. If RUN proposes to use ground water they will need to present a water tight case for it to even be considered. They will need to show that extraction will not be detrimental to people and the natural environment. They will need to understand how the hydrology of the area works, how the impacted well fields are recharged, if they are linked to surface aquifers and springs, what fauna or flora might rely on it, what the potential pathways for pollution are, how backfilling the RTS pits will impact on water flow in the area etc. I recommend that a geohydrological study and model are developed as part of the baseline. In addition, a surface water study (catchment basin study) should also be commissioned to understand how flash flooding will impact on mining and how to design clean and dirty storm water systems to ensure that habitats down stream of the mine do not lose their source of water.	Michelle Pfaffenthaler	A hydrogeological study is currently in the process of being completed. The study was commissioned to assess the possibility of the sustainable use of local groundwater reserves. The study will be available to be incorporated into the EIA process. It should be noted that at this stage all the various water supply options are being assessed, including desalination.
W05	More detail is needed on water usage. Ideally a water balance (and not just a metallurgical water balance) should be included. From an environmental point of view we would want to know how much water is being consumed, how much is being recycled, and how much is being discharged (evaporated, released to the environment).	Michelle Pfaffenthaler	A detailed water balance will be incorporated.

