SOUTH AFRICAN COUNCIL
FOR THE
LANDSCAPE ARCHITECTURAL PROFESSION

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PROFESSIONAL REGISTRATION ASSESSMENT PROCESS

2019

SECTION 3

ENVIRONMENTAL PLANNING & MANAGEMENT PROCESSES

ASSIGNMENT

Assignment Handout Date – Friday 31 May 2019

Assignement Submission Date – Monday 15 July 2019

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1.   OBJECTIVES

1.1.   The purpose of this assignment is to assess the candidate's skill and knowledge as reflected in SACLAP's core competency requirements, acquired since acquisition of a tertiary qualification.

1.2.   The candidate is to present an assignment that demonstrates the knowledge gained in the best possible manner. The assignment must demonstrate the ability of the candidate to apply what is expected in the weighted core competency table to a project in an analytical manner, providing clear reasoning and direction to the client.

1.3.   The updated reading list serves as a guide to assist the candidate.

2.   THE ASSIGNMENT

2.1 Background and Introduction

For this assignment, a developer appointed a professional team consisting of a Town and Regional Planner, Environmental Assessment Practitioner (EAP), Land Surveyor, Architect, Landscape Architect, Urban Designer, Civil Engineer, Electrical Engineer and Traffic Engineer to assist him with the design and application processes associated with the development of a new city, to be situated in between the towns of Daantjie and Liphisi, Mpumalanga Province. The study area is approximately 1000ha in size and incorporates various drainage features and rocky outcrops. The developer provided the project team with a preliminary development layout which incorporates all the proposed land-uses, activities, facilities etc. for the development. The layout did not take all the environmental aspects into consideration. The original layout is available to the candidate and downloadable from the PRAP 2019 section of the SACLAP webpage library. Refer to *Addendum A* of this Assignment.

The development must also incorporate an agricultural component which will create numerous job opportunities for beneficiaries and the environmental aspects of the site must be regarded as the form giving element for the development layout.

The proposed development must be based on sustainable development principles and an approach of integrated and holistic planning is regarded as important from the outset. Various specialist studies must be commissioned in order to assist with the site analysis of the study area and to assist with the planning of the development concept and layout. Alternative energy and water sources must also be considered.

There are currently no municipal services in the area and therefore it will also be necessary for the project team to assist with the planning of the external/ bulk services for the development.

The Kruger National Park is situated less than 7km from the study area.

In this specific case you must act as the EAP and it is your task to guide the development planning process from an environmental point of view.

In practice your inputs will, amongst others typically include the following:

i)   To determine the environmental application processes required to implement the development;

ii) To apply for the required authorisations and licenses associated with the environmental application processes;

iii) To compile the required Rehabilitation Plan, Environmental Management Programme (EMPRs), Water Quality and Quantity Management and Monitoring Plan, Landscaping Guidelines and any other environmental and landscaping (formal and formal) inputs required;

iv) To apply for the necessary permits to remove or relocate protected plant species;

v)   To make recommendations regarding storm water management that will prevent erosion, siltation and water pollution during all the development phases and apply newly adopted storm water design and management principles; and

vi) To compile and construction phase and operational phase masterplan for the development, which will be linked to the proposed final layout.

Take note that the specific tasks to be performed as part of this assignment are set out below. It will not be necessary for you to perform the tasks as set out above. These tasks are only listed to make you as candidate aware of the inputs typically required for projects of this nature.

2.1.1   Screening and Viability Report

At this stage the developer made an offer to purchase the development site, subject to the outcome of a comprehensive due-diligence exercise.

Fortunately the developer already appointed specialists to conduct specialist studies, because he regarded it worthwhile to analyse the site before purchasing the property. The

specialist studies can be used as basis for the information to be supplied in this section of the assignment. Copies of the available specialist reports as well as essential background information are attached as **Addendum B** (Also downloadable from the PRAP 2019 Section of the SACLAP website library)

For purpose of the due diligence it will be necessary for you as the EAP to supply the following inputs in the form of an Environmental Screening and Viability Report:

Important:

- Only items i- iv and viii should be addressed by Landscape Architectural Technologist Candidates.
- Landscape Architect and Landscape Architectural Senior Technologist Candidates must address all the items (Items i-viii).

i)   A Status Quo Analysis of the study area;

ii)   An analysis of the surrounding land-uses;

iii)   Compile a summary of the environmental aspects (bio-physical, social, economic and institutional) associated with the study area;[1]

iv)   Compile a sensitivity map, which consists of various layers, which, amongst others, clearly illustrate the following:
   o   Geology,
   o   Soils;
   o   Climatic information;
   o   Topography;
   o   Hydrology;
   o   Fauna;
   o   Flora; and
   o   Cultural and Historical.

v)   Identify issues and constraints of the site and use the sensitivity map and other available data as basis for this input;

vi)   Identify site assets and opportunities;

vii)   Identify " fatal flaws" and "no-go" areas/ activities;

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[1] Landscape Architectural Technologist Candidates should only summarise the bio-physical environmental aspects

viii)   Findings and recommendations as well as confirmation (from a bio-physical point of view) whether the developer should proceed with the project or not.

If you recommended that the project should proceed, it will be necessary for you to supply the rest of the project team members with the sensitivity map and all the team members must then assist (on an integrated basis) with the determination of a preliminary layout, which incorporates all the proposed activities, facilities and land-uses originally on the wish list of the developer. The sensitivity map and issues map must be included as part of the environmental screening and viability report.

With reference to the original layout supplied by the developer, it is required that you list the specific layout amendments that you would recommend to the developer, whilst still incorporating all the land-uses as proposed in the original layout. Make use of simple schematic diagrams and/or other graphic methods to illustrate your findings and recommendations.

2.1.2 Identification of Environmental Application Processes Required

Important: *This Section is only applicable to Candidate Landscape Architects and Candidate Landscape Architectural Senior Technologists*

➡	*Landscape Architect*
➡	*Landscape Architectural Senior Technologist*
	Landscape Architectural Technologist
	Landscape Architectural Technician

Once the preliminary layout for the development (based on the sensitivity analysis) becomes available, it should be possible for you as the EAP to identify all the environmental application processes required to legalise the project.

It will not be possible to identify the application processes, authorisations required, licenses required, permits required etc. if you are not familiar with the prevailing environmental legislation.

In this section of the assignment it will be necessary to discuss the spectrum of national, provincial and local environmental legislation (including national and provincial acts, regulations, etc.) that are relevant to the proposed development, and whether these pieces

of legislation require any form of authorisation, licenses or similar permissions to proceed with development. The specific sections and clauses of the legislation must be identified, along with an explanation of relevance.

Also supply detail regarding the applicable national, provincial and local policies, frameworks applicable to the development and explain the relationship between such policies, frameworks, provincial conservation maps etc. and the relevant legislation with specific reference to the NEMA EIA Regulations and the National Water Act. It is also important to use the correct reference methods when referring to the applicable legislation, polices, frameworks etc.

In addition it will be necessary to identify the competent authorities responsible for each environmental application process, the regulated timeframes for the processes and the linkages between the processes (if there are any linkages).

Also identify other application processes and approvals required by other disciplines (i.e. Cultural and Historical Specialists, Town and Regional Planners, Engineers etc.) before construction can commence.

Important: *All candidates to answer the questions below*

➡	*Candidate Landscape Architect*
➡	*Candidate Landscape Architectural Senior Technologist*
➡	*Candidate Landscape Architectural Technologist*
➡	*Candidate Landscape Architectural Technician*

It is required that you answer the following general questions regarding environmental application processes and the institutional environment:

  i)   Name the five(5) SEMA's

  ii)   What is the difference between a Basic Assessment (BA) and an Environmental Impact Assessment (EIA)?

  iii)   What legislation requires that an EIA or BA Process be followed?

  iv)   What is a Section 21 Water-Use License Application?

  v)   What is a General Authorisation (GA) Registration?

  vi)   What process must be followed if a person wishes to amend an environmental authorisation?

  vii)   What authority is responsible for the issuing of an Air Emissions License?

viii) What authority is responsible for the issuing of a Waste License?

ix) What is the One Environmental System (OeS)?

x) Where must Appeals against mining authorisations be submitted?

xi) When is a Heritage Impact Assessment required?

xii) Explain what is the GDARD C-Plan?

xiii) List the various environmental policies, frameworks, guidelines etc. used by GDARD when evaluating EIA applications. Also explain how such documents are linked to the EIA Regulations.

xiv) What is the Gauteng Environmental Management Framework (GPEMF)?

xv) Distinguish between a mining license, mining permit and a prospecting permit

xvi) Define the word/term "environment" in the context of Environmental Management and Planning

xvii) What environments must be addressed in an EIA Report or a BA Report?

xviii) Who are regarded as Interested and Affected Parties in an EIA process?

2.1.3 Compile an Environmental Management Programme (EMPr) for all the Development Phases of a School Site Adjacent to a Non-Perennial Watercourse
Refer to Addendum C for position of the school on the layout map

Important: *This Section is only applicable to Candidate Landscape Architects and Candidate Landscape Architectural Senior Technologists*

➡	*Candidate Landscape Architect*
➡	*Candidate Landscape Architectural Senior Technologist*
	Candidate Landscape Architectural Technologist
	Candidate Landscape Architectural Technician

i) Take all the environmental aspects associated with the site and the development into consideration;

ii) Take all the possible issues and impacts as listed in Item 2.2.1 into consideration;

iii) Supply guidelines to the developer, project manager, contractors, architects, landscape architects, storm water engineers, services engineers (civil engineers), traffic engineers, quantity surveyors, health and safety officers etc. in the pre-construction section of the EMPr. Such guidelines must be based on the issues, impacts, opportunities, constraints etc. identified under Item 2.2.1 above;

iv) Provide mitigation measures for the construction and operational phases;

v) Also address the design and construction of the access road to the school, which will traverse a non-perennial watercourse; and

vi) Also address the planning and decommissioning phases.

Answer the following questions regarding an EMPr and Compliance with an Environmental Authorisation:

Important: *This Section is only applicable to Candidate Landscape Architects, Candidate Landscape Architectural Senior Technologists and Candidate Landscape Architectural Technologists*

➡	*Candidate Landscape Architect*
➡	*Candidate Landscape Architectural Senior Technologist*
➡	*Candidate Landscape Architectural Technologist*
	Candidate Landscape Architectural Technician

vii) What is the relationship between an EMPr, the Environmental Impact Assessment Report (EIAR)/ the Basic Assessment Report (BAR) and the specialist reports included as part of the EIA/BA report?

viii) What is an ECO?

ix) What are the consequences of commencement with construction without environmental authorisation?

x) What is a S24G application?

xi) Why is an EMPr a very important document?

2.1.4 General Questions

Important: *All candidates to answer the questions below*

➡	*Candidate Landscape Architect*
➡	*Candidate Landscape Architectural Senior Technologist*
➡	*Candidate Landscape Architectural Technologist*
➡	*Candidate Landscape Architectural Technician*

i) What is sustainable development?

ii) What is the difference between a Green Star Rating and a LEED Certification?

iii) Why are the WSUDS and SUDS principles regarded as important?

iv) What provincial legislation refers to the SUDS principles?

v) Why are gabions along river embankments often regarded as problematic?

vi)   What is an orange listed species and what is a red data species?

vii)   What is a Landscape Development Plan (LDP)?

viii)   What is the purpose of the Green Scorpions?

ix)   Who are the Blue Scorpions?

x)   What is SAWIC?

xi)   What buffers must be applied (in Gauteng) around wetlands and around rivers?

xii)   What is a PES Rating?

xiii)   What tools are used by the City of Tshwane Metropolitan Municipality and the City of Johannesburg Metropolitan Municipality to protect natural open spaces, rivers, dams, pans, parks and other natural assets in the city?

xiv)   What authority is responsible for the issuing of a removal or transplant permit for a protected tree species in Mpumalanga?

xv)   What is a waste manifest?

xvi)   Are EIA and Section 21 Water-Use Licenses applications required for the development of roads?

xvii) Name the road planning phases in Gauteng?

xviii) In accordance with what new legislation must Town Planning Applications be submitted?

3.   ASSESSMENT OF THE ASSIGNMENT

3.1   The following criteria will be serve as basis for assessment. The assignment will be assessed according to SACLAP's Weighted Core Competency Table of September 2016. The table can be downloaded using the following link:
(http://www.saclap.org.za/download/Registration/SACLAP-Weighted_Core_Competency_Table_for_the_Landscape_Architectural_Profession-Nov_2016.pdf)

Accordingly Candidates are required to demonstrate competency levels for the Environmental Planning & Management Processes Core Competency as set out below:

Candidate Landscape Architect and Candidate Senior Landscape Architectural Technologist:
"KNOWLEDGE AND UNDERSTANDING: (integrated knowledge) the assimilation and comprehension of knowledge. Individuals should be able to understand, apply and evaluate the key terms, concepts, facts, principles, rules and theories within the working environment. The ability to select and apply a range of methods to resolve realistic landscape related problems in practice."

Candidate Landscape Architectural Technologists:

"KNOWLEDGEABLE: (to be acquainted with) To demonstrate detailed knowledge of one or more fields, disciplines or practices including the ability to apply appropriate methods, procedures and techniques within a defined context."

Candidate Landscape Architectural Technician:

"INFORMED AWARENESS: To be sufficiently informed on matters pertaining to the profession i.e. demonstrate a basic knowledge. Aided through experiential training and or industry related methods of learning."

3.2   SACLAP may call at its own discretion for additional work or information. This is not a given and subject to the assessor/ committee's recommendation.

3.3   Performance level requirements and rating will be done in line with Section 7.1.5 of the Registration Policy (September 2016).
Performance Rating Scales thus translate as follow:

Excellent	70% - 100%	(A)
Above Average	60% - 69%	(B)
Average	50% - 59%	(C)
Below Average (Requires Additional Development)	40% - 49%	(D)
Unacceptable (Requires Extensive Development and Guidance)	0% - 39%	(E)

In accordance with Section 8.1.2 of the Landscape Architectural Professions Addendum **the performance level requirement for Section 3, the Environmental Planning and Management Processes Assignment, is a "C".**

4. FORMAT AND DATE OF SUBMISSION

Submissions: the submission is to be in a sealed envelope and addressed as follows:

SACLAP Office

2nd Floor, Block A, Corobay Corner

169 Corobay Ave, Waterkloof Glen, Pretoria

Clearly marked for the attention of:

The Registrar - SACLAP

Cecilia Chinga

Please ensure that you ask the person at reception to sign your delivery note and email a copy of this to the Registrar (registrar@saclap.org.za).

NO LATE SUBMISSIONS, OR SUBMISSIONS MADE TO THE INCORRECT ADDRESS WILL BE ACCEPTED.

5. SUBMISSION REQUIREMENTS

5.1   Assignment parameters:

     i.   Size: A4 – colour

     ii.   Font: Arial 10, single line spacing

     iii.   Maximum of 50 pages

     iv.   Cover page to include the candidate's name, SACLAP No., Application category, name of the mentor

     v.   Table of Contents

     vi.   Affidavit from the candidate stating that the Assignment is his/her own work and stamped at the SAPS

     vii.   Relevant diagrams, graphs, graphics etc. to demonstrate the findings

     viii.   Reference method will also be evaluated

6. RULES OF SUBMISSION

6.1   You must submit your own work and it must be verified and signed off by your mentor.

6.2   If any additional information is required, please write to the Registrar (registrar@saclap.org.za).