

KEY SKILLS

Environmental Regulatory Processes Mine Closure Applications ECO and Environmental Auditing

EDUCATION

MSc, UJ, 2006 BSc Hons, UJ, 2005 BSc, Rand Afrikaans Unv, 2004

PROF. REGISTRATION STATUS

PrNatSci (SACNASP) (400374/11) Reg EAP (EAPASA) (2017/108)

EMPLOYMENT HISTORY

Jones & Wagener Int (2019 to date) Jones & Wagener (2011-date) Zitholele Consulting (2007-2011) Univ of Johannesburg (2005-2006)

INDUSTRY INVOLVEMENT

EAPASA (2017 to date) Board Member & Assessor (2017/108)

> IAIAsa (2007 to date) Member (2395)

SACNASP (2011 to date) Member (400374/11)

Jacqui Hex



TECHNICAL DIRECTOR - HOD (Pr SciNat, Reg EAP)

Jacqui Hex completed her MSc in Environmental Management (cum laude) in 2006. She has 15+ years experience as an Environmental Scientist and is the HoD of the Env. Man. Department. Jacqui is responsible for the Health & Safety portfolio at J&W, ensuring the company achieves its first priority, which is the safety and wellbeing of their staff, families, and the community as a whole. Jacqui also serves as an EAPASA Board Member since 2017. Email: jacqui@jaws.co.za

Relevant Experience

Overall Experience

Jacqui's work experience in the Environmental Sector commenced in 2007. Her skills range from brownfields to greenfields sites and mine closure coordination. She has gained significant experience with:

- Environmental Regulatory Processes including EIAs and BAs
- Environmental Management Programs (NEMA) and Environmental Management Programs Reports (MPRDA)
- Water Use Licence Applications (WULAs), Integrated Water and Waste Management Plans (IWWMPs) and Waste Management Licence Applications (WMLAs).

Jacqui also undertakes Environmental Auditing, Environmental Control Officer (ECO) services, Pre-Feasibility and Feasibility Studies, Public Participation, GIS, Screening Assessments and Closure Reporting.

Auditing

Jacqui has led and conducted audits on various sites including waste disposal sites and mining sites. She has audited WMLs, EAs, WULs, EMPs. For these projects she is responsible from cradle to grave, i.e. proposal compilation, contractual arrangements, proforma development, info gathering, report compilation and client liaison. Jacqui has also undertaken monthly site supervision for the extension of a landfill site in Vereeniging. Some project examples include:

- Ashanti Gold Auditing of Waste Disposal Sites, Carletonville.
- Emfuleni Local Municipality Auditing of Boitshepi Waste Disposal Site, Vereeniging
- Rand Water Auditing of Zuikerbosch Bank Stabilization Project along the Vaal River Vereeniging.
- Glencore ECO Component of the Impunzi Dragline Relocation Project Mpumalanga.

Waste Management

Jacqui's experience in waste management started in 2007. Since then she has gained significant experience with legal reviews, cemetery master plans, site selection, licensing and strategy development. The following list of projects in the last few years in Jacqui's professional career involves various aspects of the above mentioned:

- Anglo Gold Site selection process for a proposed new Tailings Facility in Guinea & Ghana
- Department of Environmental Affairs and Development Planning (DEADP) Strategy for the diversion of Household Hazardous Waste to Landfill or Recycling Facility, Western Cape.
- Emfuleni Local Municipality Cemetery Master Plan, Vanderbijlpark.
- Eskom Strategy for the diversion of CFL's from the general waste stream and specific reference to recycling and material reclamation, Western Cape
- GDARD Gauteng Waste Collection Standards, Gauteng.



Jacqui

Hex

Technical Director - HOD - (Pr SciNat, Reg EAP)

Relevant Experience

Water Use Licences

The following list of projects in the last few years in Jacqui's professional career involves various aspects of Water Use Licensing:

- Anglo American Application for exemption from GN704 for horizontal prospecting Kriel Colliery Block 7 Underground, Kriel, Mpumalanga.
- Anglo American IWULA for a new Beneficiation Plant for the Kriel Lifex Projects, Kriel, Mpumalanga.
- Anglo American IWULA for a new Block F underground mine for the Kriel Lifex Projects.
- Anglo American IWULA for a new opencast mining of pit 11 and 13 and mini-pits for the Kriel Lifex Projects
- Kuyasa Mining (Pty) Ltd IWULA for the new KiPower IPP Power Plant and Ash Facility, Delmas, Mpumalanga.
- Sasol Integrated Water and Waste Management Plan for Sasol Operations, Sasolburg.
- Union Carbide IWULA for a new water treatment plant, Verulam, Kwa-Zulu Natal.
- Xstrata Coal South Africa IWULA for all infrastructure for new opencast pillar mining at ATCOM East, iMpunzi Complex, Mpumalanga.

• Xstrata Coal South Africa - IWULA for mining through wetlands at ATCOM East, iMpunzi Complex,

Mpumalanga.

Integrated Regulatory Processes

Jacqui has several years experience in integrated regulatory processes where projects required an EIA / BA together with a WUL or WML or other approvals. Some examples of such projects include:

- BHP Billiton Energy Coal South Africa (BECSA) EIA, WML, WULA and EMPR amendment for the proposed Middelburg Water Reclamation Project (Water Treatment Plant), Middelburg, Mpumalanga.
- Era Bricks EIA, S102 application for amendment to mining right and IWULA for brick making quarry, Delmas, Mpumalanga.
- Enertrag Several EIAs, WULA and AEL for Green Hydrogen, Green Ammonia Plants and Solar and Wind Energy Farms, Northern Cape.
- Sasol Mining EIA, WML and IWULA for proposed new Alexander greenfields coal mine, Mpumalanga.
- South32 EIA, WULA and EMPR amendment for the proposed extension of Klipfontein Mines, Middelburg, Mpumalanga.
- Xstrata Coal South Africa Scoping and EMPR for a new mining right application for proposed new board and pillar mine on portions of Boschmanspoort, Hendrina, Mpumalanga.
- Kuyasa Mining KiPower IPP Project EIA, IWULA and IWWMP, Delmas, Mpumalanga.

Other Environmental Projects

Jacqui's experience is broad and also includes projects as listed below:

- Sasol Mining Closure reporting for Sasol active mines in terms of GNR1147.
- Anglo America Thermal Coal Environmental due diligence for Project Kabeljou, Environmental Consultant, Data Collection and Review, Report Compilation Confidential.
- Nkomati Lead mine closure specialist. Planning and coordination for closure of the Nickel Mine, Mpumalanga
- Eskom Aquatic Monitoring for the Kusile Power Station Construction Site, Mpumalanga.
- Eskom EIA for the proposed construction and operation of the Kappa Substation, Ceres, Western Cape.
- Eskom Five EIAs for the Bravo (Kusile) Integration Project (various 400kV transmission lines), Gauteng and Mpumalanga.
- Eskom EIA for the 360km 765kV powerline between Camden and Empangeni, Mpumalanga and KZN.
- Eskom Search and Rescue of Rare and Endangered Plant Species along the proposed pipeline from Kendal Power Station to Kusile Power Station, Mpumalanga.
- Present lectures on environmental legislation University of Pretoria Pretoria, Gauteng.
- Roadshows across South Africa to educate and inform EAPs of the EAPASA registration system.



10/06/2022

Signature

Date



herewith certifies that

Jacqueline Sharon Hex

Registration Number: 400374/11

is a registered scientist

in terms of section 20(3) of the Natural Scientific Professions Act, 2003 (Act 27 of 2003) in the following fields(s) of practice (Schedule 1 of the Act)

Environmental Science (Professional Natural Scientist)

Effective 31 August 2011

Expires 31 March 2023



Chairperson

Chief Executive Officer



To verify this certificate scan this code

Environmental Assessment Practitioners Association of South Africa

Registration No. 2017/108

Herewith certifies that

Jacqui Hex

is registered as an

Environmental Assessment Practitioner

Registered in accordance with the prescribed criteria of Regulation 15. (1) of the Section 24H Registration Authority Regulations (Regulation No. 849, Gazette No. 40154 of 22 July 2016, of the National Environmental Management Act (NEMA), Act No. 107 of 1998, as amended).

Effective: 01 March 2022

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Chairperson

Expires: 28 February 2023

Registrat



KEY SKILLS

Environmental Regulatory Processes Site Selection & GIS Screening Environmental Audits & ECO work

EDUCATION

PGCE, WITS, 2012 BSc (Hons) Geography, WITS, 2011

BSc Geog. & Ecology, WITS, 2010

PROF. REGISTRATION STATUS

SACNASP PrSciNat (117341)

EAPASA Reg EAP (2019/775)

EMPLOYMENT HISTORY

Jones & Wagener (2012 to date) Thandulwazi School (2012) Parktown Girls High (2011)

INDUSTRY INVOLVEMENT

IAIAsa (2013 to date) Member (3373)

WISA (2022 to date) GP Branch Committee member (40294)

> EAPASA (2020 to date) Member and Assessor (2019/775)

Gina Katelyn Martin



Environmental Scientist - PrSciNat; Registered EAP

Gina holds a BSc (Hons) degree in Geography from WITS University. She has been working at Jones & Wagener since 2012, where she is an Associate and an Environmental Scientist in the Env. Man. Department. With 9 years of experience, her skills include managing and conducting Env. Auth. and licensing processes, site selections, ECO work, and env. audits for companies in the mining, construction, chemical, power generation and waste management industries. Email: gina@jaws.co.za

Relevant Experience

Environmental Authorisation and Licensing processes

Gina's experience in Envir. Auth. and Licensing processes started in 2012. She has significant experience with integrated regulatory processes and her skills include undertaking MRAs, BAs, EIAs, EMPrs, WULAs, WMLAs, IIWWMPs as well as project management. The following list of 6 major projects in Gina's professional career involves various aspects of the above mentioned:

- Sasol Mining, Alexander Mining Project, South Africa In progress
- UCSA, Waste facility rehabilitation, South Africa 2022
- Dow Agrisciences, Water treatment facility, South Africa 2018
- Sibanye-Stillwater, Cessation of pumping operations, South Africa 2017
- Sun International, Decommissioning landfill site, South Africa 2017
- South32, Klipfontein opencast operations extension, South Africa 2016

Route / Site Selection and Screening processes

Gina's experience in route / site selections using GIS started in 2015. Her skills range from GIS mapping to the screening of alternatives in terms of environmental, socio-economic and financial risks. The following list of 5 major projects in the last few years in Gina's professional career involves various aspects of the above mentioned:

- NEXTEC, Site selection for proposed power plant, South Africa 2019
- Glencore, Dragline walkway route identification, South Africa 2018
- Confidential, Site selection for waste management facility, South Africa 2018
- Siguiri Gold Mine, Site selection mapping for TSF, Guinea 2015

• KiPower, Route selection and cost analysis for IPP connection to power grid, South Africa - 2015

Environmental Audits and ECO work

Gina's experience in auditing and as an Environmental Control Officer started in 2015. Since then she has conducted numerous audits of WULs, EMPrs, EAs and WMLs for the waste and mining industries. The following list of 4 major projects in Gina's professional career involves various aspects of the above mentioned:

• Sasol Mining, Annual Water Use Licence Audits, South Africa - 2018, 2019, 2021

• Confidential, Inspection for compliance with National Norms and Standards, South Africa - 2018

- Glencore, ECO for dragline relocations, South Africa 2016
- Lonmin, Waste Management Facility Annual Audits, South Africa 2015-2019

(Maptin)

10/06/2022

Signature

Environmental Assessment Practitioners Association of South Africa

Registration No. 2019/775

Herewith certifies that

Gina Katelyn Martin

is registered as an

Environmental Assessment Practitioner

Registered in accordance with the prescribed criteria of Regulation 15. (1) of the Section 24H Registration Authority Regulations (Regulation No. 849, Gazette No. 40154 of 22 July 2016, of the National Environmental Management Act (NEMA), Act No. 107 of 1998, as amended).

Effective: 01 March 2022

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Chairperson

Expires: 28 February 2023

Registrar





herewith certifies that

Gina Katelyn Martin

Registration Number: 117341

is a registered scientist

in terms of section 20(3) of the Natural Scientific Professions Act, 2003 (Act 27 of 2003) in the following fields(s) of practice (Schedule 1 of the Act)

Environmental Science (Professional Natural Scientist)

Effective 19 July 2017

Expires 31 March 2023



Chairperson

Chief Executive Officer

To verify this certificate scan this code



KEY SKILLS

Scientific Research Report Writing Data analysis

EDUCATION

BSc (Hons) Geography, Wits, 2021 BSocSc, Monash, 2020

PROF. REGISTRATION STATUS

EMPLOYMENT HISTORY

Jones & Wagener (2022 to date) North-West University (2021)

INDUSTRY INVOLVEMENT

IAIAsa Member since 2022

Daniella Kristensen



Junior Environmental Scientist

Daniella is a Junior Environmental Scientist in the Env. Man. Department. She has one year of experience as a research intern and is building her experience through employment at J&W (since January 2022). Her key focus areas at J&W include assisting with the compilation of environmental impact assessments, environmental management programmes, conducting environmental auditing and participating in research projects. Email address: daniella@jaws.co.za

Relevant Experience

Environmental Authorisation and Licensing processes

Daniella's experience in Environmental Impact Assessments started in January 2022. She has and continues to gain experience in Environmental Impact Assessments, Environmental Management Programmes and Water Use Licence / General Authorisation Applications. She is currently assisting with 3 major projects that involve various aspects of the above mentioned:

- ENERTRAG South Africa, Green Hydrogen & Ammonia and Solar & Wind Energy Farms, South Africa In progress
- Sasol Mining, Alexander Mining Project, South Africa In progress
- Seriti Power, Dispatch Rider Mining Project, South Africa In progress

Environmental Audits

Daniella's experience in Environmental Auditing started in 2022. She is currently assisting with a Waste Management Licence audit for the mining industry given below.

Lonmin, Waste Management Facility Annual Audits (2022), South Africa - In progress

Scientific Research

Daniella's experience in scientific research began with her Honours degree in 2020, through her internship at the NWU and continuing with J&W. She is currently assisting with a major research project where J&W is assisting with research centered on the Inkomati-Usuthu Catchment Management Area funded by the European Union's Horizon 2020 research and innovation programme listed below.

• Nexogenesis Research Project, South Africa - In progress

• University of the Witwatersrand, Carbon storage within the uMhlanga Lagoon, South Africa, 2020

Signature

10/06/2022