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| ****Name**** | ****Ayesha Hamid**** |
| ****Surname**** | ****Laher**** |
| ****ID**** | **6612170082081** |
| ****Nationality**** | **South African** |
| ****HDI Status**** | **Indian Female** |
| ****Education****  | BSc (Biological Sciences, University of South Africa - 2004 |
| MSc (Water), University of Northwest (Potchefstroom) - 2006 |
| M Category of Raizcorp Comprehensive Enterprise Development Programme - 2018 |
| ****Professional Registration****  | Professional Natural Scientist (No. 400197/12) |
| ****Professional Bodies****  | WISA, SACNASP, IWA |
| ****Language**** | English (home Language) Afrikaans (good) |
| ****Contact details**** | Cell: 0845063447Email: ayesha@ahlwater.co.za |
| ****Online****  | Company website: [www.ahlwater.co.za](http://www.ahlwater.co.za)LinkedIn: <https://www.linkedin.com/in/ayesha-laher-40745927/> |

# Overview

Ayesha is a professionally registered environmental scientist in the water stream. She has 18 years’ experience in all aspects of water and wastewater treatment: treatment technologies, design, operation, maintenance, and management of water and wastewater supply system.

Her participation in various policy and planning projects including the development of the Second National Water Resources Strategy has contributed to understanding of policy, legislation, water resource planning and institutional requirements for management of the entire water cycle.

As a Lead Inspector for the Blue, Green and No Drop Certifications programs of the Department of Water and Sanitation, she has sound knowledge of best practise principles for operation and management of water and wastewater treatment systems with emphasis on risk-based management.

She has developed leadership, management and financial skills in her position as Hub-Sector Lead of the Water Systems division of AECOM for two years and is currently the sole director of AHL Water, a Level 1 BBBEE water and wastewater consultancy focusing on providing holistic solution to water services challenges for commercial and municipal clients.

Ayesha has gained entrepreneurship skills to manage her business by qualifying for and successfully completing the requirements for the one-year M Category of Raizcorp Comprehensive Enterprise Development Programme and receiving the Spirit of Raizcorp award for the 2018 program.

Ayesha is an active member of WISA, currently appointed as non-executive director on the board of Water Institute of South Africa (WISA) for period 2021- 2023 and served as council member for South African Council for Natural Scientific Professions (SACNASP) in the Water Resources Division.

Ayesha has contributed to several Water Research Publications, presented at numerous conferences and assists with social responsibility initiatives focusing on sector building and citizen support, in particular technical support to Gift of the Givers on water issues.

# **Work History**

## **AHL WATER: November 2016 – Current**

****Self-employed – Director AHL Water Level I BEE company****

* Water Safety Plans and Wastewater Risk Abatement Plans for Bitou Municipality: Develop Water Safety Plans for two water treatment plants and Wastewater Risk Abatement Plans for two wastewater plant.
* Water safety plans for Bloem Water: Develop Water Safety Plans and Incident Management Protocols for two water treatment plants.
* Green Cape Energy audits of Wastewater Treatment plants: conducting energy audits of five wastewater treatment plants to identify energy efficiency opportunities and costing.
* Process audits for Magalies Water: Appointed to conduct process audits for two water treatment plants operated by Magalies Water.
* Independent Advisory Panel for Implementation of the Permanent Desalination Plan, City of Cape Town: appointed as panel members, key focus area water quality, risk management and legislation.
* 2022 Green Drop Progress Report: moderate Green Drop Progress assessment reports, data analysis and completion of 2023 Green Drop Progress report (national, regional, DPW and private systems).
* 2022 Blue Drop Lead Inspector: Conduct Blue Drop audits of 39 wastewater supply system as Lead Inspector for Department of Water and Sanitation, assist with training Lead Inspectors and moderation of scorecards
* Process audits and Water Safety Plans for Harry Gwala LM: Appointed to conduct process audits and develop Water Safety Plans (WSP) for ten water treatment plants located in Harry Gwala District Municipality.
* Netcare Water Quality support: 2-year appointment to assist Netcare with various activities related to water services – legal compliance of water treatment plants, municipal water quality verification, process audits, design reviews, borehole feasibility studies, and specialist member of Water Management Committee.
* 2021 Blue Drop Progress Report: develop BDRR formular and scorecards, provide audit training to DWS personnel, moderation of final BDRR scorecards, data analysis, and completion of 2022 Blue Drop Progress report (national, regional and for all supply systems).
* 2021 Green Drop Lead Inspector: appointed as lead inspector by DWS to conduct Green Drop audits of 39 wastewater supply systems and assist with training of Lead Inspectors.
* Legislative Compliance and design review of Netcare New Alberton Hospital: Legislative review and design assessment for proposed installation of grey water treatment plant at the Netcare New Alberton Hospital.
* WRC publication: Supporting the development of standards for water use efficiency and water safety in buildings: Project leader and main technical lead for two-year project.
* Process audits and W2RAPS for Harry Gwala LM: Appointed to conduct process audits and develop Wastewater Risk Abatement Plans (W2RAP’s) for nine wastewater treatment plants located in Harry Gwala District Municipality.
* Legislative Compliance for Organic WWTW V&A Waterfront: Legislative review and risk assessment for proposed installation of Organica WWTW at V&A Waterfront, Cape Town.
* Water/Wastewater Support for OR Tambo: Blue and Green Drop mock audits and improvement plans, Process audits, Water Safety plans and Wastewater risk abatement plans, Uploading data on iris and training.
* Consultancy Services to Support Lilongwe Water Board's Institutional Modernisation Programme: Appointed by PWC to assist with Process audits, Training on Development of Water Safety Plans, Development of Water Safety Plan, conduct quarterly risk review of Water Safety Plan, and offer technical support on development of risk-based monitoring programs.
* Upgrade/refurbishment of water treatment plants in Tswelopele Local Municipality

Upgrade of Bultfontein and Hoopstad WTW: design, tender, contract admin and closeout.

* Process audits for Tswelopele Local Municipality

Conducted detailed process audit and Blue Drop audits of two water treatment plants, develop risk-based implementation plan with costing for all items to serve as Pre-feasibility report for upgrade.

* Water Quality Management of Koppies Water Supply System

Conducted process audit, risk assessment and blue drop audit; developed Water Safety Plan, Water Quality Incident Management Protocol, Blue Drop Improvement Plan and O&M Manual for Koppies Water Treatment Plant.

* Process audits for Harry Gwala LM

Appointed by Zimile Engineering to conduct process audits and risk assessment of two water treatment plants in Harry Gwala Local Municipality

* Process audits of Ventersdorp WWTW and Potchefstroom WWTW

Appointed by Korone Engineering to conduct Process audit and Risk assessment of two treatment plants in JB Marks Local municipality to identify process-limiting factors.

* Netcare Water Quality Verification support

Conducted process audit of Netcare Kroon WTW, development of Incident management protocol and water quality monitoring programs for all facilities to ensure delivery of safe drinking water, and development of legal compliance checklist for facilities with water treatment plants.

* Home Affairs Water Quality assessment

Risk assessment of water supply system in commercial building to verify water quality and provide recommendations to ensure compliance.

* eMondlo Water and Wastewater process audit and risk assessment

Appointed by Mangethe Group to conduct Process audit and comprehensive risk assessment of WTW and WWTW to assist with refurbishment/upgrade of these plants by MISA.

* PRASA Water Quality assessment

Risk assessment of water supply systems to identify root cause of failures and propose action plan for mitigating measures.

* Netcare review of O&M Plan

Evaluation of suitable service provider to undertake O&M of Christian Barnard Memorial Hospital WTW

* DWS Blue Drop PAT Report 2017

Appointed by DWS (Regulations) to compile the Blue Drop Progress Assessment Tool (PAT) for 2017: moderate Blue Drop reports, write WSA regional and national overview to indicate performance and trends

* Netcare review of Desalination plant

Appointed to review desalination plant to be installed at hospital in Cape Town: focus on legal compliance, operations, maintenance, design and price, company experience

* Netcare review of proposed Blackwater Systems

Appointed to review proposed blackwater treatment plants for four hospitals in Western Cape: focus on legal compliance, operations, maintenance, design, acceptability.

* GSK Audit of treatment plant

Review of groundwater treatment plant at pharmaceutical factory (legal compliance, operations and management against norms and standards).

* ERWAT Green Drop Audits

Appointed with Watergroup as consortium to conduct quarterly Green Drop audits for 19 WWTW for a period of three years. Responsible as technical lead, Lead Inspector, development of Green Drop Improvement plants, skills development and training, quarterly reports and presentation to EXCO.

* Murray and Roberts Water – Consultant

Appointed for 12-month period to with water and wastewater operations, maintenance, management, client liaison, marketing and development of best practise principles for containerised systems.

Conducted borehole feasibility, design review, development of risk-based monitoring program, legal compliance, risk assessment, log sheets and incident protocol for Life Health Vincent Palotti Hospital water treatment plant.

* Sembcorp Silulumanzi - Review of Water Safety Plan and conduct process audits

Appointed as subconsultant to CSV Water to audit and review Water Safety plan for five supply systems and conduct process audits for three WTW as per Blue Drop requirements.

* Department of Public Works- Green Drop Project

Responsible for Key Focus Area 8- Development of Green Drop Improvement Plans for 82 wastewater treatment plants and Blue Drop Improvement Plans for 11 water treatment plant. Evaluate current Green/Blue Drop status, identify gaps, develop implementation plan and determine projected scores for 10-year horizon

* Bidvest SA Water/Improchem – Laboratory Testing for destruction of cyanide with ozone

Conducted lab testing on mine slurry to determine efficacy of ozone gas for destruction of cyanide to acceptable discharge limits. Awaiting approval from client to proceed with pilot-testing.

## **AECOM: January 2013 – October 2016**

****Hub Sector Lead: Water Systems****

Operations lead for Water Systems Division comprising three sub-sectors namely Water Infrastructure Services, Treatment and Bulk, and Water Governance and Planning.

Responsible for management of team including HR requirement (mentorship, performance and rewards, succession planning, training), quality management systems, H&S duties, daily operational requirement (resources, utilisation), financial management (profit & loss, monthly reports, billing and collections, EAC’s), project management (skills, time, budget, schedule, quality), compliance (ethics, contractual, due diligence, DOA) and marketing (proposal, bids, client engagements, interdepartmental bids).

****Water Scientist****

* **ERWAT verification of Green Drop Score**

Project manager responsible for project proposal, execution and management. Complete GD evaluation and develop improvement plan per GD criteria for 19 WWTW

* Upgrade of Temba WTW

Acting as Client engineer, provide lead on Hazop on process control for all unit processes including ozone and GAC, provide lead on process-related queries form contractor.

* Netcare Borehole Feasibility Study

Project Director responsible for conceptualisation of study, client relations, technical lead for project. Specific deliverables include evaluation of water quality, treatment technologies and legislative review.

* Upgrade of Mogwase WWTP

Technical lead to develop and implement Wastewater Risk Abatement Plan (W2RAP) and action plan, review of sludge classification and sludge disposal, industrial effluent monitoring strategy, engagements with DWS and Water Utility to secure funding and support, report writing and review of technical reports.

* Review of the National Water Resources Monitoring Network

Water Quality specialist responsible for review of 5 National Water Quality programs. Specific deliverables were User requirements, Network Inventory (GIS), National Objectives for monitoring, Data Integrity assessment, and scientific review to define critical and optimal network, development of National Monitoring Strategy. Tasks included mentorship of DWS staff, facilitation of consultation workshops and presentations to steering committee.

* Implementation of National Water Resources Strategy

Project Manager responsible to help DWS (Policy and Regulation Unit) to implement NWRS2. Specific deliverables were assisting SALGA to develop a NWRS2 implementation plan and a monitoring tool per KPI, developing an excel-based Consolidated Implementation Plan incorporating all sectors plans and Project Management.

* Review of National Water Resources Strategy (NWRS2)

Responsible for review of comments received from public consultation process, development of structure for reporting comments in centralised database, comments report summarising issues, feedback to DWA champions on comments received. Additional tasks included preparation of presentations, reports and communication material, and project administration.

* Development of the Limpopo North Reconciliation Strategy

Task team leader for water quality, water reuse and WCWDM. Activities include water quality overview- identify problem areas and pollution source, GIS maps of non-compliance, develop mitigating factors, resource quality objectives and use of RQO model to set limits; options for water reuse- technology costs, quantification of reuse in study area, comparison of cost; WCWDM – overview of current situation and mitigating measures.

* Vioolsdrift Noordoewer Dam Feasibility

Water quality task team leader, literature review, water quality analysis, treatment options, and client presentations.

* Western Highveld Feasibility Study and IRS (RBIG)

Responsible for process audits of treatment plants, performance-limiting overview and recommendations to upgrade treatment plants to ensure sustainable operations. Provide for technical input on network analysis and surface and ground water quality; literature review of IRS, report writing and review of technical reports.

* uThungulu Integrated Asset Management Strategy:

Conducted infrastructure assessment of water services in municipality including Operations, maintenance, monitoring, staff requirements, incident management and reporting. Responsible for site visits, report writing and review of technical reports.

* iLembe Section 78 process

Conducted infrastructure assessment of water services in municipality including Operations, maintenance, monitoring, staff requirements, incident management and reporting. Responsible for site visits, report writing and review of technical reports.

* District Water Services Manger Forum (DWSMF) Peer Review Program

Facilitation of peer review process and workshop to evaluate water management, technical input to compiling feedback presentation to municipality and final report outlining action plan for implementation and assist with project administration.

* DWA Master Planning:

Assisted with compiling Water Services Development Plan for Sekhukhune DM and Capricorn DM focusing on water quality, water conservation and demand management, Institutional arrangements, operations and maintenance, asset management, and customer services. Responsible for literature review, report writing and project meetings

* Capricorn Water Treatment Audits

Process audits of eleven water supply systems, development of water safety plans, incident management protocols and risk-based water quality monitoring programs. Duties include project management, client liaison, all deliverables and list of recommendations to improve all supply systems.

* Modimolle WWTW Upgrade

Responsible for client liaison, funding options, review of technical report and license requirements.

## **CSV WATER: 2008-2013**

****Director and Water Scientist****

* **Blue, Green and No Drop Lead Inspector for Incentive-based Certification program**

Program rolled out by Department of Water and Sanitation for water services authorities from 2007. Lead inspector responsible for auditing water and wastewater treatment plant, assisting municipalities with information and guidance to comply, checking, and finalizing audit sheets of panel member, capacity building of panel members and site assessments. Duration from inception of program in 2007 to 2013, audited close to 45 municipalities throughout South Africa.

* **Technical support to municipalities to achieve Blue Drop and Green Drop Certification**

Assisted several water services authorities to achieve Blue and Green Drop Certification by preparing various documents, assisting with implementation of management plans and capacity building and training for following requirements: Water safety plans, Wastewater risk abatement plans, Incident Management Protocols, O&M manuals. Municipalities include Steve Tshwete Local Municipality, City of Tshwane, Alfred Nzo Municipality, Westonaria Municipality, Dr JS Moroka Local Municipality. Duration from 2007-2013.

* **Process Audits of Water and Wastewater Treatment Plants**

Clients include Lepelle Northern Water, Tzaneen Local Municipality, Dr. JS Moroka Local Municipality, Mogale City and EXXARO Lephalale. Tasks include operational evaluation against design of treatment process and each unit process, rated capacity of units, operations evaluation, process controller requirements, water quality assessment, administration assessment and recommendations to address performance-limiting factors.

* **Midvaal Water Plant Optimisation Plan**

Detailed assessment of treatment plant with regards to water quality and quantity, unit process assessment and optimization report, rated capacity, coagulation, control, chemical cost evaluations, proposed upgrade of wastewater recycle unit, as per IWA plant assessment guidelines.

## **SA WATER CYCLE GROUP: 2007-2008**

****Water Scientist****

* **Roodeplaat Pilot Plant**

The project involved design and manufacture of a 1000l/hr pilot plant for Magalies Water (Roodeplaat), to test for the use of ozone at Roodeplaat. Responsible for design of ozone and GAC columns, review of water quality information, calculation of ozone dosage and contact time, commissioning of pilot plant.

* **Oxyzone Plant at Tower D, Air Products**

The project involved containerised system to treat cooling towers using ozone only. A smaller pilot plant had been operating for over a year at Air Products Vanderbijlpark. Responsible for design and commissioning of operational unit, sizing of ozone generator and contactor, determination of required ozone dosage, site preparation including Hazop study, and sourcing of appropriate monitors.

* **Cyanide Removal Pilot Plant**

Improchem approached SA Water to test if ozone can be used to remove cyanide from goldmine slurry from Harmony Gold, Randfontein. Duties included performing batch tests on the mine slurry by exposure to ozone, calibration of reactor, determination of theoretical applied ozone dosage. SA Water was subsequently appointed to design and manufacture a pilot plant on site: duties included determination of required ozone dosage, sizing of generator and oxygen generator, design of contact column and associated pipework, commissioning on site, operation and troubleshooting on site and assisting with trial runs.

# Publications, Presentations, Training and Media Activities

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| ****A: Presentations and Papers****  |
| **Date** | **Conference** | **Presentation** |
| 28th September 2022 | WISA 2022 Conference  | Paper presented: *Water Safety In Buildings.* Chairperson of Session 79, Improving water use efficiency and demand management |
| 3rd August 2022 | OUTA Women in Water Webinar | Guest Speaker, Presentation: *Status of Water in SA and Citizen Science.*  |
| 25th May 2022 | SAICE Water Division Webinar | Guest Speaker, *Presentation: Blue Drop Progress Report 2022: Key Findings of the Water Systems Audit* |
| 7th December 2020 | WISA 2020, Virtual conference,  | Paper presented: *Virtual Green Drop Audits of Wastewater Treatment Facilities- a Case Study*  |
| 31st August 2020 | **WISA Gauteng Branch**Women's Month Webinar | Guest speaker, Presentation: *The Chronicles of a Water Scientist* |
| 15th October 2019 | WISA Water Career Awareness Day, University of Pretoria,  | Guest speaker, Presentation*: Careers in the Water Sector for Scientist* |
| 18th September 2019  | Water Reuse Conference, Birchwood  | Paper Presented: *Use of Risk management principles for sustainable water use*  |
| 18th September 2019  | SRK consulting, JHB | Guest speaker, Presentation: Risk Management of water supply systems  |
| 15th August 2019 | WISA Gauteng, Women Process Controllers Day, ERWAT | Guest speaker, Presentation: *Are you prepared for the 4th Industrial Revolution in water/wastewater?* |
| 27th March 2019 | Water Show Africa Sandton  |  Seminar presentation*: Is your water safe to drink?*  |
| 15th Feb 2019 | YWP DWS seminar Pretoria  | Guest speaker, Presentation: *The Importance of a Holistic understanding of the South African Water Sector* |
| 27th September 2018 | Power conference for Women in Water UtilitiesRiverside Incubation Hub, Fourways | Guest speaker, Presentation: *How can I be Wrong? A perspective journey of your success* |
| 27th June 20018 | WISA 2018ICC Cape Town | Hosted Workshop and presentation: “*Challenges of Groundwater Use by the Commercial Sector in the Western Cape”* |
| 30-31st May 2018 | Africa Health: Hospital Build Conference Gallagher Estates. Midrand | Paper presented*: Sustainable Water Supply for Healthcare facilities*  |
| 8th Nov 2017 | UJ-ESKOM WORKSHOP PROGRAMME 2017. University of Johannesburg  | Guest speaker, Presentation**:** *Chronicle of a scientist.*  |
| 16th May 2016 | WISA Conference, Durban ICC.. | Workshop presented: “*Integrated asset management: cornerstone for sustainable water service delivery:*Chairperson of Session 49 on Capacity building |
| 15th September 2015 | Water Quality Summit; Sandton City | Papers presented: “*Implementation of risk-based principles to achieve Blue Drop”, and “Green Drop requirements”* |
| 8th July 2013 | Municipal Water Quality Conference, Sun City. | Paper Presented: “*A guide to developing a risk-based monitoring programme*”. |
| 2011 | Municipal Water Quality Conference, ICC Cape Town. | Papers Presented:“*A guide to process audits”*, and “*Why the need for a Water Safety Plan and Risk Abatement Plan”.* |
| 2010 | WISA Conference, ICC, Durban. | Paper presented:” *A guide to process audits leading to optimisation”.* |
| 2009 | WaterTech Africa, Gallagher Estates, Midrand. | Paper Presented: *“Guidelines for the evaluation of ozone for NOM removal: Case study at Midvaal Water”.* |
| 2008 | WISA Conference, Durban. | Paper Presented:“*The effect of pre-ozonation on the physical characteristics of raw water and natural organic matter (NOM) in raw water from different South African water resources*” |
| 2005 | Lower Orange River Remediation Forum. | Presentation title: “*Use of Ozone in Water Treatment”* |
| 2004 | Water Science Symposium, Northwest University. | Presentation title:*“The Effect of Ozone on Algal Cells and Natural Organic Matter in South African Waters”* |
| 2004 | Suid-Afrikaanse Akademie vir Wetenskap Jaarkongres. | Paper presented: *“Die invloed van osoon op alge en algselkomponente by watersuiwering*” |

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| ****B: Water Research Commission and other reviews****  |
| **Date** | **Name of project** | **Position** |
| 2021 | WRC publication: *Supporting the development of standards for water use efficiency and water safety in buildings* | Team leader for two-year project to complete this publication (2021-2022) |
| 2020 | WRC Publication: *The impact of energy effluent processes and technologies on cost and compliance at municipal wastewater treatment plants* | Reference Group Member  |
| 2017 | WRC Publication: *Guidance on drinking water supply systems performance assessment and optimization*  | Reference Group member |
| 2015 - 2016 | WRC Publication: *Decision support tool for Wastewater Treatment Technology selection.* | Reference group member  |
| August 2015 | TOR 1008341: *Guidance on drinking water supply systems performance assessment and optimisation* | Request by WRC to review proposals submitted  |
| 2015 | WRC sponsored workshop on *Wastewater Treatment Plant modelling to support the Green Drop program* | Invited by WRC to attend meeting as technical specialist |
| 2014 | Title: *Efficacy of conventional drinking water treatment processes in removing problem-causing phytoplankton and associated organic compounds.*H. Ewerts, A. Swanepoel and H.H. du Preez | Review of scientific article for Water SA |
| 2013 | WRC Publication: *Development of Web-enabled (and supportive spreadsheet-based) Wastewater Risk Abatement Panning Tools*  | Reference group member  |
| 2011 | WRC Publications: *Wastewater Risk abatement plan: A W2RAP guideline*.  | Member of specialist review panel and contributed examples of W2RAP documents |

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| **C: Training Courses Presented**  |
| **Date** | **Name of project** | **Description** |
| 3-4 May 2023 | Three-day course on Energy Efficiency Audit of wastewater treatment works for University of Johannesburg, Process, Energy and Environmental Technology Station (PEETS) | 2 day formal training session on Energy Efficiency at treatment plants: overview, methodology, energy efficiency interventions, 1 day site visit to WWTW , and written exam.  |
| 17-19th October 2022 | Five-day course presented to Afriforum: “Fundamental concepts in water and wastewater treatment and the regulatory environment”. | 2.5-day training course on the fundamentals drinking water infrastructure, processes, and regulation (Blue Drop Certification) - theory and practical (**5 CPD credits** in total) |
| 8-9th February 2021 | Two-day training session on Development of Water Safety Plan for Lilongwe Water Board  | Training on how to develop a Water Safety Plan: formal and practical training which included site visit to plant and network  |
| 24th July 2019 | A One-day Training on Wastewater Audits, Risk Assessment (W2RAP), Green Drop Certification Requirements presented to Sasol staff at Secunda WWTW | Provided training on Green Drop Certification |
| 18th September 2019 | On-line training for SRK Consulting-  | Training provided on Risk management of Water systems  |
| 2-4th March 2020 | Custom-made 3-day Training Course for the Auditor-General, jointly presented by CBSS and AHL Water. Title of course” Water Governance in South Africa” | Training provided on following:* Blue Drop Certification
* Water Treatment Technologies
* Site visit to Daspoort WWTW
* Risk identification procedures
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| ****D: Social Responsibility Initiatives****  |
| **Date** | **Event** | **Venue** | **Participation** |
| Current | Assist Gift of Giver | NA | Adhoc support to NGO with water related issued: registration of boreholes, water use licence applications, required treatment process, incident reporting, water strategy  |
| Current  | Council member of SACNASP: Water resource Division  | NA | Responsible for approval of all new scientists, (profession, candidate) in water resources field  |
| Current  | Non-executive board member of WISA | NA | Fulfil duties of board member – attending meeting, providing strategic insight  |
| 2020 | WISA 2020 Conference  | N/A | Assisting technical committee with review of abstracts, arranging technical tours.  |
| 2020  | WISA Gauteng Division  | N/A | Active member of WISA Gauteng Division from 2019 |
| 26th June 2018 | WISA 2018 | ICC Cape Town | Organised and hosted half day workshop for Water Science Workshop titled” Making a splash: How WISA can strengthen the social compact within the water sector?” |
| 28th November 2017 | Handover of Hippo Rollers – WISA Water Science Division | Alexandra Food gardens and World Vision  | Chairperson of WISA Water Science Division to hand over Hippo Rollers donated at Women in Water Conference  |
| 19 October 2017 | WISA Women in Water Conference | Indaba Hotel  | Facilitator of Conference |
| 19th October 2017 | WISA Women in Water Conference 2017  | Indaba Hotel  | AHL Water - Sponsorship of prizes for water fun event  |

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| ****E: Media Articles****  |
| **Date** | **Event** | **Link** |
| LinkedIn Articles  | **5 Feb 2109**: Is tap water safe to drink in South Africa?**29 May 2019**: Wate Quality Verification audits for your building, home, factory30 April 2020: Effect of Lockdown on water quality in buildings | <https://www.linkedin.com/in/ayesha-laher-40745927/detail/recent-activity/posts/> |
| SA Profile Magazine  | **Volume 2 2019, page 90-91.** Profile on AHL Water- Sustainably management is a reality **Volume 3 2020, page 62/64:** Risk Management for water services – the silver bullet to our current water woes  | <https://mediaxpose.co.za/publications/sa-profile-online/> |
| Water and Sanitation Magazine - official magazine of the Water Institute of Southern Africa (WISA) |  **Vol 13 No 3. May/June 2018. Page 23**Hospital off the grid – report on Life Health Vincent Palotti containerised plant  |  |
| **Vol 13. No 5. Sept/October 2018. Page 50-51**Giving Back to Communities- reporting on WISA WSD division handover of hippo rollers |  |
| **Vol 14 No 3. Page 13**Changing the Narrative – report back on WISA YWP event  |  |
| **Vol 14 No 5. Sept/Oct 2019. Page 46 – 49**Celebrating Women in Water – reporting on WISA Process Controllers Day |  |
| **Vol 14. No 5. Sept/Oct 2019. Page 22-24**Article: How Safe is your water?  | <https://issuu.com/glen.t/docs/wasa_september_2019_/24> |
| **Vol 14 No 3. May/June 2020**Specialist contribution: Recapacitating our failing plants | <https://issuu.com/glen.t/docs/wasa_may_2020/22> |
|  **Volume 15. Page 40. Nov/December 2020**ILab Water Testing Kit | https://issuu.com/glen.t/docs/wasa\_nov\_dec\_2020/40 |
| **Volume 15. Page 42. Nov/December 2020**Virtual audits | https://issuu.com/glen.t/docs/wasa\_nov\_dec\_2020/42 |
| **Volume 16. Page 45.** **Jan/Feb 2021.**Self-Regulation in the Water Sector | <https://issuu.com/glen.t/docs/wasa_jan_feb_2021> |

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| **F: Continuous **Professional Development****  |
| Date | Name of Event | Description |
| 2,4, 6 August 2021 | DWS Green Drop training (3 CPD Points) | Three-day training session for Green Drop Lead Inspectors: Green Drop Audit Process and Scorecard, Green Drop Assessment of Technical Reports, Green Drop Process Condition Assessment and Technical Site Assessment |
| 6th September 2021 | BD PAT training (1 CPD) | One-day workshop to train DWS national and regional staff members on Blue Drop Risk Rating (BDRR) Assessment Tool: methodology, calculations, development of water safety plans and their key components.  |
| 12-14th October 2020  | Train the Trainer Course offered by WISA: Conducting Energy Efficiency Audits at Wastewater Treatment Works (1 CPD Point) | One- day short course for subject specialists to train them on offering training to municipalities, industries, etc |
| 12 July 2019 | Train the Trainer Course offered by WISA: Anaerobic Digestion(1 CPD Point) | One- day short course for subject specialists to train them on offering training to municipalities, industries, etc |
| 15-17th October 2019 | Water Governance Training offered by CBSS(2 CPD points) | Participated in 3-day training program on Water Governance |