

WATER EFFICIENCY SERVICES

GARNER SUSTAINABILITY CONSULTING SERVICES (PTY) LTD

A WATER & ENVIRONMENTAL CONSULTANCY

LEVEL 4 BBEEE COMPANY

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Water Efficiency Evaluation Services

Water efficiency evaluations can be done at several levels of complexity and detail depending on the client need and desired outcome. The process of developing water efficiency for an organisation remains the same however, and can be summarised into three steps:

1. Water evaluation – The intent of this step is to define and scope the water management for an organisation and through this process identify significant water consumption and opportunity areas (Including cost reductions and business case). The evaluation process can extend to identifying key improvement opportunities including technologies that could have a suitable fit and indicating the possible impact of these on the organisations water efficiency. Evaluation approaches can range from conceptual to defining level.

Water evaluations typically entail the following:

- 1.1. Require access and collection of key baseline water data for the site/organisation;
 - 1.2. Includes both site assessment and off-site evaluations; and
 - 1.3. Takes few weeks depending on the complexity and level required by the client.
2. Opportunity development – Once the evaluation step has been completed, the organisation can go further to evaluate selected efficiency improvements. This opportunity development stage typically takes selected water interventions from conceptual to feasibility where the organisation will be positioned to make an investment decision. Included in opportunity development is the design of the measurement and monitoring. In some cases, also included is the installation and commissioning of the interventions, but this is at the discretion of the client.

Water opportunity development typically entails the following:

- 2.1. Requires detailed baseline water data for the intervention;
 - 2.2. Requires a pre-feasibility evaluation of suitable intervention options;
 - 2.3. Requires permissions and authorisations;
 - 2.4. Project Management including design, costing and risk evaluation;
 - 2.5. Physical installation and commissioning of the intervention; and
 - 2.6. Can take a significant time depending on the project complexity.
3. Measurement and verification – Post implementation verification of the project delivery depends on the organisation's need for external disclosure on water performance. This could be for simple publicity purposes, but could also be for regulatory or financial remuneration. The Measurement and Verification (M&V) processes typically follow the Efficiency Valuation Organisation's (EVO) International Performance Measurement and Verification Protocols.

1. Company Description

1.1. Company Profile

Since 2015 Garner Sustainability Consulting Services has been operating as a strategic and sustainability consulting business focused on the provision of water management, environmental and strategic business solutions. The company has a deep understanding of sustainability, environment and water management, strategy and policy, providing innovative and practical solutions to a variety of business seeking to manage, enhance or develop this aspect of their business.

Our unique knowledge and understanding of the water encompasses both physical and management systems interventions, funding modelling, water and utility services, industry standards, risk management and the latest technologies. Our focus is to integrate the best possible advice, services and solutions into your daily operational management to avoid risk and cost, whilst setting business on course for value added sustainable management.

1.2. Mission statement & vision

Our mission is to provide a comprehensive range of customised, cost effective and sustainable, water and environmental management products and services to our customers. Our approach and thinking is tailored to each customer's needs and objectives and integrated into their core business processes.

Our vision is to be the preferred provider of strategic thinking to the South and broader African industrial sector and selected by local government, water boards and mining Industry as the preferred specialist water & environmental management company operating in South Africa. We are focused on growing our market to be a service and advisory supplier of choice to Africa.

1.3. Core water efficiency competencies

The company supplies sustainable and practical business solutions in water management that includes, but is not limited to:

- The development of tactical and strategic plans to address water, environment and business development opportunities in multiple sectors;
- Water efficiency evaluations, water balance reviews, monitoring programmes and water/environmental risk assessments in the industrial and mining sector;
- Development, review and evaluation of water governance frameworks using international and local benchmarking and compliance requirements;
- Project management, management plans and funding model compilation;
- Waste and water use licenses, environmental management plans, mine closure planning, safety and environmental audits and assessments and
- Water training and skills development.

Our extensive experience in technical, strategic and governance systems enables us to accurately design, review and simplify water management in a cost-effective manner. Some of our water solutions include:

- **Water efficiency evaluation, forecast water demand and technology solutions.** Our unique approach has proven its ability to establish and manage water efficiency targets in line with the national water conservation and demand management strategies in most Southern African countries;

- **Water Balance evaluations and management improvements.** Our technical engagements at site level have illustrated that most water management systems are not used effectively for business management. Our hands-on review and update approach ensures that operations do not have inaccuracies and issue that can leave the business at risk through uncontrolled release or excesses.
- **Cost of water and the environmental business case.** One of the weakest parts to environmental management is the ability to communicate its value to business management. Our approach focuses on the real values and risks that comprise the business case for management.
- **Water and environmental integrated risk assessment and analysis.** An integrated approach to risk is the only way to fully understand the actual business, social and environmental risk. We use a dynamic risk assessment process that includes controls and control effectiveness.
- **Documentation review, assessments and development.** Ensuring your environmental commitments are current, dynamic, accurate and achievable is critical in today's complex legal environment.
- **Assessing the business opportunity and approach for water.** Our extensive experience gives us an unique insight into the role water can play for business. Having clear strategies and governance frameworks that complement the business can be a critical economic and social advantage. Our approach focuses on imbedding this into the core business to ensure sustainability of the product.

2. Company pedigree

Our business concept is to utilise local expertise to develop and understand the business context and solution needs. Our knowledge and expertise assists in obtaining the latest information and trends thus providing a comprehensive range of high quality, cost effective and sustainable water & environmental management products and services. Below is a sample of our projects and clients:

- Building water business opportunities (Barloworld; Aquamat SA; Thebe Investment Holdings);
- Review of water technical documentation (Golder Associates);
- Risk assessment and control effectiveness evaluations (De Beers; DB Thermal);
- Water efficiency review, forecast demand management (De Beers; Debswana; South African Chamber of Mines; Water Research Commission);
- Water business case (ARUP; De Beers; Stuart Coal);
- Strategic development (GIZ; Aquamat SA; Gerson Lehrman Group);
- Training and skills Development (Centre for Creative Leadership; Association of Energy Engineers; National Energy Training Foundation); and
- SHEC Governance frameworks and systems (Aquamat SA).

Richard Garner, the company Director and lead consultant, has over 18 years' environmental and water management experience. This experience ranges from ground to board level, and includes significant project successes in pollution management, environmental management system certification, corporate reporting, strategy development and globally benchmarked programmes.

Please see our website www.gscserv.net for more details on the range of services and skills on offer to you as a client.

Should you have any further questions please contact us on:

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