

POSITION IDENTIFICATION

Title	Planning and New Schemes Manager
Functional Area	Solo Water
Reports to	Solo Water Management

POSITION OBJECTIVE

Primary Purpose of Position – To manage and coordinate new Solo Water schemes through the planning, approvals, licencing and conceptual design phase to ensure all new Solo Water schemes are sustainable from both an environmental and cost perspective.

This role involves negotiations with IPART, EPA, Councils, Water Utilities, Health, the community and other key stakeholders and government agencies.

This role will also provide technical support across all aspects of the Solo Water business including construction, operations and retail.

The Planning and New Schemes Manager is required to actively seek out new projects and promote the Solo Water brand throughout the water and land development industries.

Decision Making Standards with the Position - Due to the industry level of experience required to hold this position, the role will experience a large degree of accountability and autonomy combined with conditional shareholder support to achieve the defined quality and financial company objectives. It is a position that reflects a message of strong but fair leadership with an unconditional necessity to implement successful performance management strategies.

A Planning and New Schemes Manager shall have the authority to carry out the duties required by this position description.

SPECIFIC RESPONSIBILITIES**Planning New Schemes**

- Ensure all new Solo Water scheme are sustainable from an environmental, social and economic perspective.
- Manage the planning approvals process for new scheme in a timely manner consistent with the program of the land development and regulatory requirements.
- Manage the IPART application process in a timely manner to have new schemes added to the Solo Water portfolio.
- Continue to refine and improve the Solo Water decentralised model and strive towards best practice in the water and land development industries.
- Actively seek out new projects and increase awareness of the Solo Water brand in the water and land development industries.

Project and Operations Management

- Actively manage our Land development clients to ensure achievement of mutually agreeable goals.
- Deliver planning and approvals project phases in a timely manner and in line with the corporate and project budgets.
- Actively manage all consultants and contractors involved in the planning and approvals phase to ensure quality project proposals.
- Provide high level guidance and technical support to all Solo Water teams including construction, operations, retail and compliance.
- Comply with internal project and budget reporting requirements.

People Management

- Must have a “hands-on” management approach.
- Present a pleasant professional attitude at all times.
- Ensure role model behaviours are adhered to by all company staff and management.
- Ensure you and your teams adherence to legal and policy requirements (E.G Workplace Health and Safety, policies, harassment and discrimination laws)
- Ensure expectations are clearly understood with current position descriptions and employee performance plans in place.
- Carry out consistent coaching, training and succession planning at all times to ensure development of people with understanding and adherence to company standards.
- Follow Company guidelines for any disciplinary or reward actions as required.

Other Responsibilities

- Be active in growing the company
- Be accepting & willing to grow with the company
- General duties as required to assist colleagues and company performance
- Other Tasks may be assigned from time to time which contributes to the overall success of the company.

KEY PERFORMANCE OBJECTIVES

- Quality Safety & Environment at Site for personnel & sub-contractors, during planning and approvals phases.
- Ensure licence and planning approval conditions are appropriate for the schemes.
- Assist with compliance auditing and review schemes to ensure they are being operated and maintained as intended.
- Delivery of projects on time & on budget

- Performance to management approved budgeted sales and EBIT plans
- Performance to management approved budgeted returns on capital employed
- Consistent performance and achievements of group financial budget guidelines and KPI's
- Contribute to a consistent high level of customer satisfaction for Solo Water schemes.
- Quality of handover and succession planning outcomes
- Achieving growth by a brand profile built on a reputation of successful implementation and compliant operations
- Maintaining a position at the forefront of process, design and implementation
- Successful registration of required patents, inventions, IP and design

COMPETENCIES REQUIRED

The following competencies are required for this position:

Communication	Utilise high level communication skills to ensure Solo Water planning and approvals phases are conducted in compliance with policies and procedures.
Team Work	Lead and encourage team work in order to build efficiencies and maximise operational output.
Problem Solving	Draw on previous knowledge and skills to solve problems as they arise, effectively and efficiently.
Self Management	Function effectively autonomously. Be proactive in your self-management to ensure deadlines are met.
Planning and Organisation	Plan, co-ordinate and direct work accordingly to ensure completion by deadlines and budget targets.
Technology	Utilise available technologies to complete tasks as required.
Learning	Identify gaps and take necessary steps to encourage learning in the workplace.
Initiative and enterprise	Use initiative and think outside the box; maintain high levels of innovation to ensure the Company remains at the forefront of the waste management industry.

PERSON SPECIFICATION QUALIFICATIONS/ KNOWLEDGE/ EXPERIENCE

Qualifications – Essential:

- (a) Engineering Degree, preferably environmental engineering.
- (b) Team Building / Management

Qualifications – Desirable:

- a) At the discretion of the General Manager

Knowledge, Skills & Experience (Essential):

- (a) Minimum 10 years experience within the water industry focusing on planning and conceptual design of new schemes
- (b) Knowledge of planning and approval process for the water industry
- (c) Knowledge of land development master planning processes
- (d) Water and Wastewater Design, Development, Construction and Operations

Knowledge, Skills & Experience (Desirable):

- a) At the discretion of the General Manager

WORK HEALTH AND SAFETY

General

The Work Health and Safety Objectives form an essential part of this role and it is imperative that these Objectives are achieved. The achievement of these objectives will form part of the employees annual Staff Development Review.

- (a) Ensure employees care for their own health and safety and that of others.
- (b) Ensure Lockout Tags are used in accordance with work procedure IMS-SAFE-D-4806.
- (c) Work safely and maintain a safe workplace.
- (d) Ensure that you present as "Fit for Work" at all times.
- (e) Avoid taking risks.
- (f) Ensure that before starting a new job, that correct procedure is known.
- (g) Report and hazards immediately.
- (h) Submit own ideas towards safety.
- (i) Wear protective clothing where necessary or as indicated by signage.
- (j) Operate equipment in a safe manner.

QUALITY

- (a) To ensure that the dealing with customers and other company staff is supportive of the company's commitment to quality service.
- (b) Ensure that all work is of the highest standard, to minimize reliability of service to customers.
- (c) Ensure that the dealings with customers and other company employees are supportive of the Company's commitment to quality service.
- (d) Ensure familiarization with the company's Integrated Management System (IMS).
- (e) Perform all duties of the position in accordance with all policies and procedures of the Integrated Management System (IMS).
- (f) Maintain standards and controls to ensure design and quality output is maintained to legislative and other legally required standards.
- (g) Set work programs in order of priority, to maximise best practices and achieve the highest quality.
- (h) Foster a collaborative and cooperative approach in all decision making.
- (i) Lead company alignment through appropriate, clear and direct communication.
- (j) Deliver industry leading quality outcomes through a programme of continuous improvement that develops our operational capability.

ENVIRONMENT

- (a) Be environmentally aware and pro-active in the approach to environmental management.
- (b) Ensure that new schemes are environmentally sustainable.
- (c) Strive towards water industry best practice
- (d) Contribute to the appropriate resolution of significant incidents that are escalated internally
- (e) Dispose of waste in an environmentally sound manner; recycling where appropriate.
- (f) Lead by example and encourage others to operate in an environmentally responsible manner.
- (g) Educate and ensure employees are following the correct environmental procedures, following legislative requirements and operating in an environmentally responsible manner.

ORGANISATIONAL RELATIONSHIPS / AUTHORITY

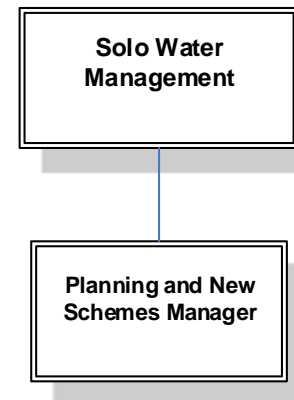
ORGANISATIONAL RELATIONSHIPS

Reports to: Solo Water Management

Manages: Project planning and approvals

Internal Contacts: Construction and Operational Teams
Design and Engineering Team
Sales, Marketing and Financial Teams
Retail teams

External Contacts: Land development clients
Consultants through planning, approvals, conceptual design and handover to construction, commissioning and operations and maintenance.
Solo Water Customers – e.g.: Ratepayers & Developers



ORGANISATIONAL AUTHORITY

Decisions made in the position: As advised throughout training.

Decisions Referred: As advised throughout training.

ACKNOWLEDGEMENT

This Position Description has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities and qualification required of employees assigned to the role.

POSITION IDENTIFICATION

Title	Water and Wastewater Utility Engineer
Functional Area	Solo Water
Reports to	Solo Water Management

POSITION OBJECTIVE

Primary Purpose of Position - To be able to develop the procedures required to meet the company's obligations under the IPART Licencing regime. Manage Site Staff. Responsible and accountable for the design, construction, development and implementation of a profitable compliant robust total water solution through waste water treatment plants, water treatment plants, pressure sewerage collection and recycling systems while establishing the Solo Water brand as an industry leader by premium quality of operations. Actively assist in growing the company.

Decision Making Standards with the Position - Due to the industry level of experience required to hold this position, the role will experience a large degree of accountability and autonomy combined with conditional shareholder support to achieve the defined quality and financial company objectives. It is a position that reflects a message of strong but fair leadership with an unconditional necessity to implement successful performance management strategies.

A Water and Wastewater Utility Engineer shall have the authority to carry out the duties required by this position description.

SPECIFIC RESPONSIBILITIES

Product Development Design and Engineering

- To continue to refine and develop existing designs and process to improve performance, implementation and operational capability and feasibilities.
- To manage design and engineering developments within company budgets.
- Focus on reducing the Solo Water Carbon Footprint through design and engineering.

Project and Operations Management

- Guarantee Water Quality through robust protection systems
- Ensure complete compliance with all QSE requirements.
- Manage on site staff – with a “hands-on” attitude.
- Be pro-active in the development of systems & procedures for the operations.
- Ensure that the IPART Licencing obligations are fully met with the continual improvement of internal procedures & practices.
- Be available after hours to assist with the management and escalation of incidents that may occur from time to time.

- Mentor and develop staff to obtain the best possible results from our human resources.
- Be willing to work on site to understand the process of construction & operations.
- Identify and eliminate any risk, financial or otherwise prior to any agreement to commence for any specific project implementation.
- Pro-actively manage the on-site Client & Sub-contractors relationships.
- Report to the management staged accurate progress updates in the required format when due.
- Ensure that all company procedures are adhered to.
- Ensure any invoice approved for payment is in fact complete with no residual exposure.
- Deliver project key stages on time in line with company and specific project budget.
- Meet project commissioning handover quality and operational standards with the relevant authorities to applicable compliance and company standards.
- Effectively manage works programmes and progress reporting meeting required authority compliance standards with a focus on delivering on-time and on budget.
- Effectively manage sub contractors and trades in line with required authority compliance standards in line with company budgets.
- Maintain a clean safe compliant work environment at all times.
- Continually review the security & operational risks on all sites and ensure there are adequate measures in place to eliminate or mitigate risk.
- To develop and implement new strategies to increase productivity, profitability and quality to enhance the delivery of the final product.
- Ensure company working capital targets are met to a return as nominated by the management.
- Immediately report to the management any abnormal variance or unbudgeted activity on any project.
- Immediately report to the management any increase in the company's financial risk profile.
- Immediately report to the management any threatened or pending litigation

People Management

- Must have a "hands-on" management approach.
- Present a pleasant professional attitude at all times.
- Ensure role model behaviours are adhered to by all company staff and management.
- Ensure you and your teams adherence to legal and policy requirements (E.G Workplace Health and Safety, policies, harassment and discrimination laws)
- Ensure expectations are clearly understood with current position descriptions and employee performance plans in place.

- Carry out consistent coaching, training and succession planning at all times to ensure development of people with understanding and adherence to company standards.
- Follow Company guidelines for any disciplinary or reward actions as required.

Other Responsibilities

- Be active in growing the company
- Be accepting & willing to grow with the company
- General duties as required to assist colleagues and company performance
- Other Tasks may be assigned from time to time which contributes to the overall success of the company.

KEY PERFORMANCE OBJECTIVES

- Quality Safety & Environment at Site for personnel & sub-contractors, during construction & operational phases
- Ensure that the operations meet or exceed all of the obligations set out under the IPART Licencing regime
- Development, implementation and integration of business systems to support operations, including IMS (Quality, Safety & Environment), Water Quality, Corporate Asset Management, GIS, & SCADA.
- Delivery of projects and operations on time & on budget
- Performance to management approved budgeted sales and EBIT plans
- Performance to management approved budgeted returns on capital employed
- Consistent performance and achievements of group financial budget guidelines and KPI's
- Consistent premium quality of operations and outcomes
- Consistent high level of customer satisfaction through delivery and process
- Quality of handover and succession planning outcomes
- Achieving growth by a brand profile built on a reputation of successful implementation and compliant operations
- Maintaining a position at the forefront of process, design and implementation
- Successful registration of required patents, inventions, IP and design

COMPETENCIES REQUIRED

The following competencies are required for this position:

Communication	Utilise high level communication skills to ensure Solo Water Operations are conducted in compliance with policies and procedures.
Team Work	Lead and encourage team work in order to build efficiencies and maximise operational output.
Problem Solving	Draw on previous knowledge and skills to solve problems as they arise, effectively and efficiently.
Self Management	Function effectively autonomously. Be proactive in your self-management to ensure deadlines are met.
Planning and Organisation	Plan, co-ordinate and direct work accordingly to ensure completion by deadlines and budget targets.
Technology	Utilise available technologies to complete tasks as required.
Learning	Identify gaps and take necessary steps to encourage learning in the workplace.
Initiative and enterprise	Use initiative and think outside the box; maintain high levels of innovation to ensure the Company remains at the forefront of the waste management industry.

PERSON SPECIFICATION

QUALIFICATIONS/ KNOWLEDGE/ EXPERIENCE

Qualifications – Essential:

- a) Engineering Degree
- b) Team Building / Management

Qualifications – Desirable:

- a) At the discretion of the General Manager

Knowledge, Skills & Experience (Essential):

- a) Minimum 10 years Operations Experience within the water industry
- b) Water and Wastewater Design, Development, Construction and Operations

Knowledge, Skills & Experience (Desirable):

- a) At the discretion of the General Manager

WORK HEALTH AND SAFETY

General

The Work Health and Safety Objectives form an essential part of this role and it is imperative that these Objectives are achieved. The achievement of these objectives will form part of the employees annual Staff Development Review.

- (a) Ensure employees care for their own health and safety and that of others.
- (b) Ensure Lockout Tags are used in accordance with work procedure IMS-SAFE-D-4806.
- (c) Work safely and maintain a safe workplace.
- (d) Ensure that you present as "Fit for Work" at all times.
- (e) Avoid taking risks.
- (f) Ensure that before starting a new job, that correct procedure is known.
- (g) Report and hazards immediately.
- (h) Submit own ideas towards safety.
- (i) Wear protective clothing where necessary or as indicated by signage.
- (j) Operate equipment in a safe manner.

QUALITY

- (a) To ensure that the dealing with customers and other company staff is supportive of the company's commitment to quality service.
- (b) Ensure that all work is of the highest standard, to minimize reliability of service to customers.
- (c) Ensure that the dealings with customers and other company employees are supportive of the Company's commitment to quality service.
- (d) Ensure familiarization with the company's Integrated Management System (IMS).
- (e) Perform all duties of the position in accordance with all policies and procedures of the Integrated Management System (IMS).
- (f) Maintain standards and controls to ensure design and quality output is maintained to legislative and other legally required standards.
- (g) Set work programs in order of priority, to maximise best practices and achieve the highest quality.
- (h) Foster a collaborative and cooperative approach in all decision making.
- (i) Lead company alignment through appropriate, clear and direct communication.
- (j) Deliver industry leading quality outcomes through a programme of continuous improvement that develops our operational capability.

ENVIRONMENT

- (a) Be environmentally aware and pro-active in the approach to environmental management.
- (b) Ensure that all spills are cleaned as per company procedure using environmentally sound methods.
- (c) Ensure all environmental incidents are reported to managers and reporting documentation completed.
- (d) Dispose of waste in an environmentally sound manner; recycling where appropriate.
- (e) Lead by example and encourage others to operate in an environmentally responsible manner.
- (f) Educate and ensure employees are following the correct environmental procedures, following legislative requirements and operating in an environmentally responsible manner.

ORGANISATIONAL RELATIONSHIPS / AUTHORITY

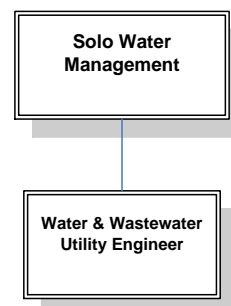
ORGANISATIONAL RELATIONSHIPS

Reports to: Solo Water Management

Manages: Project Operation and Maintenance Staff

Internal Contacts: Construction and Operational Teams
Design and Engineering Team
Sales, Marketing and Financial Teams

External Contacts: The Clients
Consultants through design, construction, commissioning and handover to Operations and Maintenance
Project Sub Contractors and Client Construction Managers
Solo Water Customers – e.g.: Ratepayers & Developers



ORGANISATIONAL AUTHORITY

Decisions made in the position: As advised throughout training.

Decisions Referred: As advised throughout training.

ACKNOWLEDGEMENT

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POSITION IDENTIFICATION

Title	Site Manager – Solo Water
Functional Area	Solo Water
Reports to	Construction & Operations Manager

POSITION OBJECTIVE

A Site Manager is responsible and accountable for organising, constructing, operating and maintaining water & waste water plants & reticulation systems including potable water reticulation, recycled water reticulation and pressure sewer collection systems while establishing the Solo Water brand as an industry leader.

A Site Manager shall have the authority to carry out the duties required by this position description.

SPECIFIC RESPONSIBILITIES**Site Management**

- Regulation reporting and documentation to the required regulatory authority
- Monthly operation reporting and QA documentation
- Attending to Customer enquiries
- Operating and maintaining WWTP, AWTP, Ancillary systems and recycled water network at each development
- Ensure complete compliance with all Work Place Health & Safety requirements
- Maintain a clean safe compliant work environment at all times
- Continually review the security on any site and ensure there are adequate measures in place to eliminate any risk
- Ensure company budgets are met
- Report any abnormal variance or unbudgeted activity
- Report any increase in the company financial risk
- Report any threatened or pending litigation

People Management

- Present a pleasant professional attitude at all times
- Ensure role model behaviours are adhered to
- Ensure you adhere to legal and policy agreements (e.g.: Work Place, Health and Safety policies, harassment and discrimination laws)
- Follow company guidelines for any disciplinary or reward actions required

KEY PERFORMANCE OBJECTIVES

Outputs	Key Performance Indicator
As negotiated with Construction & Operations Manager	As determined by Construction & Operations Manager

COMPETENCIES REQUIRED

The following competencies are required for this position:

Communication	Utilise high level communication skills to ensure Solo Water Operations are conducted in compliance with policies and procedures.
Team Work	Lead and encourage team work in order to build efficiencies and maximise operational output.
Problem Solving	Draw on previous knowledge and skills to solve problems as they arise, effectively and efficiently.
Self Management	Function effectively autonomously. Be proactive in your self-management to ensure deadlines are met.
Planning and Organisation	Plan, co-ordinate and direct work accordingly to ensure completion by deadlines and budget targets.
Technology	Utilise available technologies to complete tasks as required.
Learning	Identify gaps and take necessary steps to encourage learning in the workplace.
Initiative and enterprise	Use initiative and think outside the box; maintain high levels of innovation to ensure the Company remains at the forefront of the waste management industry.

PERSON SPECIFICATION

QUALIFICATIONS/ KNOWLEDGE/ EXPERIENCE

Qualifications – Essential:

- a) At the discretion of the Construction & Operations Manager

Qualifications – Desirable:

- a) At the discretion of the Construction & Operations Manager
 b) Trade or technical qualifications applicable to the water industry.

Knowledge, Skills & Experience (Essential):

- a) Minimum of 10 years experience in the water industry in the construction, operation and maintenance of water infrastructure.
- b) Minimum 2 years experience in a similar site management role in the water industry
- c) At the discretion of the Construction & Operations Manager

Knowledge, Skills & Experience (Desirable):

- a) At the discretion of the Construction & Operations Manager

WORK HEALTH AND SAFETY

The Work Health and Safety Objectives form an essential part of this role and it is imperative that these Objectives are achieved. The achievement of these objectives will form part of the employees annual Staff Development Review.

- (a) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (b) Ensure that appropriate PPE is worn at all times.
- (c) Report any hazards in the workplace.
- (d) Set a good example to other staff and subcontractors on safe work behaviour standards.
- (e) Ensure employees and subcontractors care for their own health and safety and that of others.

QUALITY

- (a) Maintain standards and controls to ensure design and quality output is maintained to legislative and other legally required standards.
- (b) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (c) Ensure that the dealings with customers and other Company employees are supportive of the Company's commitment to quality service.

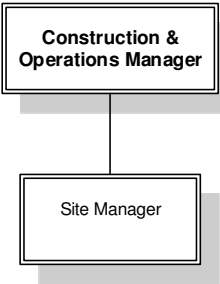
ENVIRONMENT

- (a) Lead by example and be environmentally aware and pro-active in the approach to environmental management.
- (b) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (c) Ensure that spills are cleaned using appropriate environmentally sound methods.
- (d) Dispose of waste in an environmentally sound manner; recycling where appropriate.

ORGANISATIONAL RELATIONSHIPS / AUTHORITY

ORGANISATIONAL RELATIONSHIPS

- Reports to:** Construction & Operations Manager
- Manages:** Subordinate staff and contractors
- Internal Contacts:** Solo Water employees and management
- External Contacts:** All clients / customers / suppliers / sub contractors



ACKNOWLEDGEMENT

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POSITION IDENTIFICATION

Title	Site Supervisor – Solo Water
Functional Area	Solo Water
Reports to	Site Manager

POSITION OBJECTIVE

A Site Supervisor is responsible and accountable for organising, constructing, operating and maintaining water & waste water plants & reticulation systems including potable water reticulation, recycled water reticulation and pressure sewer collection systems while establishing the Solo Water brand as an industry leader.

A Site Supervisor shall have the authority to carry out the duties required by this position description.

SPECIFIC RESPONSIBILITIES

Site Management

- Regulation reporting and documentation to the required regulatory authority
- Monthly operation reporting and QA documentation
- Attending to Customer enquiries
- Operating and maintaining WWTP, AWTP, Ancillary systems and recycled water network at each development
- Ensure complete compliance with all Work Place Health & Safety requirements
- Maintain a clean safe compliant work environment at all times
- Continually review the security on any site and ensure there are adequate measures in place to eliminate any risk
- Ensure company budgets are met
- Report any abnormal variance or unbudgeted activity
- Report any increase in the company financial risk
- Report any threatened or pending litigation

People Management

- Present a pleasant professional attitude at all times
- Ensure role model behaviours are adhered to
- Ensure you adhere to legal and policy agreements (e.g.: Work Place, Health and Safety policies, harassment and discrimination laws)
- Follow company guidelines for any disciplinary or reward actions required

KEY PERFORMANCE OBJECTIVES

Outputs	Key Performance Indicator
As negotiated with Construction & Operations Manager	As determined by Construction & Operations Manager

COMPETENCIES REQUIRED

The following competencies are required for this position:

Communication	Utilise high level communication skills to ensure Solo Water Operations are conducted in compliance with policies and procedures.
Team Work	Lead and encourage team work in order to build efficiencies and maximise operational output.
Problem Solving	Draw on previous knowledge and skills to solve problems as they arise, effectively and efficiently.
Self Management	Function effectively autonomously. Be proactive in your self-management to ensure deadlines are met.
Planning and Organisation	Plan, co-ordinate and direct work accordingly to ensure completion by deadlines and budget targets.
Technology	Utilise available technologies to complete tasks as required.
Learning	Identify gaps and take necessary steps to encourage learning in the workplace.
Initiative and enterprise	Use initiative and think outside the box; maintain high levels of innovation to ensure the Company remains at the forefront of the waste management industry.

PERSON SPECIFICATION

QUALIFICATIONS/ KNOWLEDGE/ EXPERIENCE

Qualifications – Essential:

- a) At the discretion of the Construction & Operations Manager

Qualifications – Desirable:

- a) At the discretion of the Construction & Operations Manager
 b) Trade or technical qualifications applicable to the water industry.

Knowledge, Skills & Experience (Essential):

- a) Minimum of 5 years experience in the water industry in the construction, operation and maintenance of water infrastructure.
- b) Minimum 2 years experience in a similar Supervisory role in the water industry
- c) At the discretion of the Construction & Operations Manager

Knowledge, Skills & Experience (Desirable):

- a) At the discretion of the Construction & Operations Manager

WORK HEALTH AND SAFETY

The Work Health and Safety Objectives form an essential part of this role and it is imperative that these Objectives are achieved. The achievement of these objectives will form part of the employees annual Staff Development Review.

- (a) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (b) Ensure that appropriate PPE is worn at all times.
- (c) Report any hazards in the workplace.
- (d) Set a good example to other staff and subcontractors on safe work behaviour standards.
- (e) Ensure employees and subcontractors care for their own health and safety and that of others.

QUALITY

- (a) Maintain standards and controls to ensure design and quality output is maintained to legislative and other legally required standards.
- (b) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (c) Ensure that the dealings with customers and other Company employees are supportive of the Company's commitment to quality service.

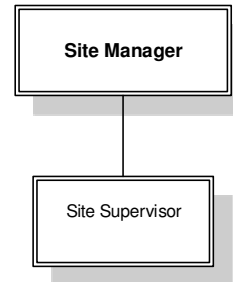
ENVIRONMENT

- (a) Lead by example and be environmentally aware and pro-active in the approach to environmental management.
- (b) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (c) Ensure that spills are cleaned using appropriate environmentally sound methods.
- (d) Dispose of waste in an environmentally sound manner; recycling where appropriate.

ORGANISATIONAL RELATIONSHIPS / AUTHORITY

ORGANISATIONAL RELATIONSHIPS

Reports to:	Site Manager
Manages:	Subordinate staff and Contractors
Internal Contacts:	Solo Water employees and management
External Contacts:	All clients / customers / suppliers / sub contractors



ACKNOWLEDGEMENT

This Position Description has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities and qualification required of employees assigned to the role.

POSITION IDENTIFICATION

Title	Water and Wastewater Systems Operator – Solo Water
Functional Area	Solo Water
Reports to	Construction & Operations Manager

POSITION OBJECTIVE

A Water and Wastewater Systems Operator is responsible and accountable for the operation and maintenance of Solo's water and wastewater infrastructure including wastewater and recycled water treatment plant, potable/recycled water reticulation and pressure sewer collection systems while establishing the Solo Water brand as an industry leader.

A Water and Wastewater Systems Operator shall have the authority to carry out the duties required by this position description.

SPECIFIC RESPONSIBILITIES**Site Management**

- Regulation reporting and documentation to the required regulatory authority;
- Monthly operation reporting and QA documentation;
- Attending to Customer enquiries;
- Operating and maintaining WWTP, AWTP, ancillary systems and potable/recycled water network at each development;
- Support the delivery of capital works projects including the construction, installation and commissioning of new infrastructure;
- Ensure complete compliance with all Work Place Health & Safety requirements;
- Maintain a clean safe compliant work environment at all times;
- Continually review the security on any site and ensure there are adequate measures in place to eliminate any risk;
- Ensure company budgets are met;
- Report any abnormal variance or unbudgeted activity;
- Report any increase in the company financial risk;
- Report any threatened or pending litigation;

People Management

- Present a pleasant professional attitude at all times;
- Ensure role model behaviours are adhered to;
- Effectively communicate, cooperate and work with team members to create a harmonious and productive workplace;

- Ensure you adhere to legal and policy agreements (e.g.: Work Place, Health and Safety policies, harassment and discrimination laws);
- Follow company guidelines for any disciplinary or reward actions required;

KEY PERFORMANCE OBJECTIVES

Outputs	Key Performance Indicator
As negotiated with Construction & Operations Manager	As determined by Construction & Operations Manager

COMPETENCIES REQUIRED

The following competencies are required for this position:

Communication	Utilise high level communication skills to ensure Solo Water Operations are conducted in compliance with policies and procedures.
Team Work	Lead and encourage team work in order to build efficiencies and maximise operational output.
Problem Solving	Draw on previous knowledge and skills to solve problems as they arise, effectively and efficiently.
Self Management	Function effectively autonomously. Be proactive in your self-management to ensure deadlines are met.
Planning and Organisation	Plan, co-ordinate and direct work accordingly to ensure completion by deadlines and budget targets.
Technology	Utilise available technologies to complete tasks as required.
Learning	Identify gaps and take necessary steps to encourage learning in the workplace.
Initiative and enterprise	Use initiative and think outside the box; maintain high levels of innovation to ensure the Company remains at the forefront of the waste management industry.

PERSON SPECIFICATION

QUALIFICATIONS/ KNOWLEDGE/ EXPERIENCE

Qualifications – Essential:

- At the discretion of the Construction & Operations Manager

Qualifications – Desirable:

- a) At the discretion of the Construction & Operations Manager
- b) Trade or technical qualifications applicable to the water industry

Knowledge, Skills & Experience (Essential):

- a) Minimum 5 years experience in the water industry with a focus on operation and maintenance of water and wastewater system.
- b) At the discretion of the Construction & Operations Manager

Knowledge, Skills & Experience (Desirable):

- a) At the discretion of the Construction & Operations Manager

WORK HEALTH AND SAFETY

The Work Health and Safety Objectives form an essential part of this role and it is imperative that these Objectives are achieved. The achievement of these objectives will form part of the employees annual Staff Development Review.

- (a) Ensure employees and subcontractors care for their own health and safety and that of others.
- (b) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (c) Ensure Lockout Tags are used in accordance with work procedure IMS-SAFE-D-4806.
- (d) Work safely and maintain a safe workplace.
- (e) Ensure that you present as "Fit for Work" at all times.
- (f) Avoid taking risks.
- (g) Ensure that before starting a new job, that correct procedure is known.
- (h) Report any hazards immediately.
- (i) Submit own ideas towards safety.
- (j) Wear protective clothing where necessary or as indicated by signage.
- (k) Operate equipment in a safe manner.
- (l) Ensure that appropriate PPE is worn at all times.
- (a) Set a good example to other staff and subcontractors on safe work behaviour standards.

QUALITY

- (a) Maintain standards and controls to ensure design and quality output is maintained to legislative and other legally required standards.
- (b) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (c) Perform all duties of the position in accordance with all policies and procedures of

the Integrated Management System (IMS).

- (d) Ensure that the dealings with customers and other Company employees are supportive of the Company's commitment to quality service.
- (e) Ensure that all work is of the highest standard, to ensure reliability of service to customers.
- (f) Set work programs in order of priority, to maximise best practices and achieve the highest quality.
- (g) Foster a collaborative and cooperative approach in all decision making.
- (h) Deliver industry leading quality outcomes through a programme of continuous improvement that develops our operational capability.

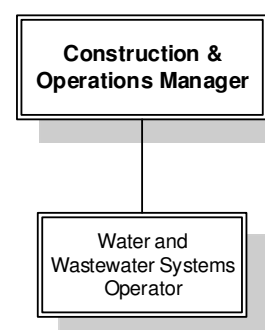
ENVIRONMENT

- (a) Lead by example and be environmentally aware and pro-active in the approach to environmental management.
- (b) Perform all duties of the position in accordance with all policies and procedures of the Integrated Management System (IMS), Environmental Management Plan (EMP) and associated procedures.
- (c) Ensure that spills are cleaned using appropriate environmentally sound methods.
- (d) Contribute to the appropriate resolution of significant incidents that are escalated internally.
- (e) Ensure that the correct environmental procedures and legislative requirements are followed and the system is operated in an environmentally responsible manner.
- (f) Dispose of waste in an environmentally sound manner; recycling where appropriate.

ORGANISATIONAL RELATIONSHIPS / AUTHORITY

ORGANISATIONAL RELATIONSHIPS

Reports to:	Construction & Operations Manager
Manages:	Subordinate staff and Contractors
Internal Contacts:	Solo Water employees and Management
External Contacts:	All clients / customers / suppliers / sub contractors



ACKNOWLEDGEMENT

This Position Description has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities and qualification required of employees assigned to the role.



Catherine Hill Bay Water Utility

Licence Plan Audit (Stage 2 Scheme)

#14071-10-001 Version 2.0

Independent Pricing and Regulatory Tribunal

March 2019

Document History

Catherine Hill Bay Water Utility

Licence Plan Audit
(Stage 2 Scheme)

Independent Pricing and Regulatory Tribunal

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1. Executive Summary

1.1 Auditor Declaration

This report presents the findings of a Licence Plan Audit of the compliance of Catherine Hill Bay Water Utility Pty Ltd's *Infrastructure Operating Plan*, *Drinking Water Quality Management Plan*, *Recycled Water Quality Management Plan* and *Sewage Management Plan* with the relevant provisions of the *Water Industry Competition Act 2006* and the *Water Industry Competition (General) Regulation 2008* as they relate to the drinking water, sewerage and recycled water schemes at Catherine Hill Bay.

The auditor confirms that:

- the auditor was provided with sufficient evidence on which to base the conclusions reached during the audit;
- the audit findings accurately reflect the professional opinion of the auditor;
- the auditor has conducted the audit, determined the audit findings and prepared this report in accordance with the requirements of the *WIC Act Audit Guidelines*¹ and the provisions of the Audit Deed; and
- the audit findings have not been unduly influenced by the Licensee and/or any of its associates and express the auditor's opinion as to whether the Licensee has met the Licence conditions and regulatory requirements as specified in the scope.

1.2 Major Findings

The Licensee, Catherine Hill Bay Water Utility Pty Ltd, was found to have documented the arrangements in relation to the design, construction, operation and maintenance of the proposed drinking water, sewerage and recycled water schemes in full compliance with the assessed audit criteria. No non-compliances were identified.

1.3 Recommendations

No recommendations have been made as a result of this audit.

Three (3) opportunities for improvement, which the Licensee may wish to consider, are identified in the body of the report.

1.4 Conclusion

In the opinion of the auditors, the Catherine Hill Bay Water management plans (*Infrastructure Operating Plan*, *Drinking Water Quality Management Plan*, *Recycled Water Quality Management Plan* and *Sewage Management Plan*) adequately document the arrangements in relation to the design, construction, operation and maintenance of the Stage 2 drinking water, sewerage and recycled (non-potable) water infrastructure to be operated under Network Operator's Licence No: 16_035. The documented arrangements are adequately compliant with the relevant guidelines, standards and legislative requirements.

¹ IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

2. Introduction

2.1 Objectives

This report presents the findings of a Licence Plan Audit undertaken for the Independent Pricing and Regulatory Tribunal (IPART) under the provisions of the *Water Industry Competition Act 2006*.

The objective of the audit was to assess compliance of the Licensee, Catherine Hill Bay Water Utility Pty Ltd's (Catherine Hill Bay Water or CHBWU) Licence Plans (*Infrastructure Operating Plan, Drinking Water Quality Management Plan, Recycled Water Quality Management Plan and Sewage Management Plan*) with the provisions of the relevant legislation (the *Water Industry Competition Act 2006* and *Water Industry Competition (General) Regulation 2008*) as they relate to the drinking water, sewerage and recycled water schemes at Catherine Hill Bay. These schemes will be operated pursuant to the conditions of Network Operator's Licence No: 16_035.

It is noted that a separately reported New Infrastructure Audit² was conducted in conjunction with this audit.

2.2 Licensee's Infrastructure, Systems and Procedures

The infrastructure, systems and procedures subject to audit are those related to the drinking water, sewerage and recycled water schemes (the Schemes) that will service "The Beaches" land and housing development at Catherine Hill Bay, approximately 20 kilometres south of Newcastle (refer <http://www.solowater.com.au/schemes/>). At the current stage of development, the Water Industry Infrastructure comprises:

- Stage 1 (which has previously been approved for commercial operation), including:³
 - a potable (drinking) water network that draws water from an existing bulk potable water supply, with an inline chlorine monitoring and dosing system;
 - a pressure sewer collection network, together with an interim pump out tank (for disposal of sewage by road tanker); and
 - a non-potable (recycled) water network, which has initially been charged with potable water via a cross connection from the potable water supply located downstream of the chlorine dosing point.
- Stage 2 (for which approval for commercial operation is now sought and is the subject of this audit), including:
 - a treatment plant for the production of recycled water from sewage;
 - facilities for the on-site storage of recycled water prior to distribution; and
 - on-site drinking water storage and chlorine dosing facility.

Once the Stage 2 infrastructure has been approved for commercial operation, the non-potable water network will be charged with recycled water. Surplus recycled water will be transported offsite until an irrigation system, which will be incorporated as part of Stages 6 and 7 of the land development, is commissioned. The proposed irrigation system will be subject to future audit and approval, and is not included in the scope of this audit.

² Cobbitty Consulting/Water Futures, *Catherine Hill Bay Water Utility; New Infrastructure Audit (Stage 2 Scheme)* (Version 2.0), November 2018.

³ Minister for Energy and Utilities, *Notice of approval to bring new infrastructure into commercial operation*, 27 October 2017.

Catherine Hill Bay Water Utility Pty Ltd (ACN 163 381 922) is the Licensee, holding Network Operator's Licence No: 16_035. As Licensee, Catherine Hill Bay Water will own and/or be responsible for the ongoing operation and maintenance of the drinking water network, sewerage network and the recycled water network (under the Stage 2 arrangements) in accordance with its Licence Plans including:

- Solo Water, *Catherine Hill Bay Water Utility; Infrastructure Operating Plan; Stage 2* (reference: IMS-OPER-B-8297-SW) (Revision 2.1), 5 November 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Drinking Water Quality Management Plan; Stage 2* (reference: IMS-ENVM-B-3727-SW) (Revision 2.0), 31 August 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Recycled Water Quality Management Plan; Stage 2* (reference: IMS-ENVM-B-3727-SW) (Revision 1.1), 5 November 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Sewage Management Plan; Stage 2* (reference: IMS-ENVM-B-3728-SW) (Revision 2.1), 5 November 2018; and
- other relevant supporting documentation.

It is noted that the *Infrastructure Operating Plan*, *Recycled Water Quality Management Plan* and *Sewage Management Plan* were updated during the audit process to remove reference to the use of recycled water for construction purposes. Whilst it is understood that this use was identified in the management plans submitted with Catherine Hill Bay Water's licence application, it was not reflected in the granted Licence.

2.3 Audit Method

2.3.1 Audit Scope

The audit comprised a Licence Plan Audit conducted pursuant to the *WIC Act Audit Guidelines*.⁴ The specific scope of the audit addressed identified requirements of the *Water Industry Competition (General) Regulation 2008* as they relate to the:

- *Infrastructure Operating Plan* (IOP);
- *Water Quality Plan (drinking water)* (WQP(dw));
- *Water Quality Plan (non-potable water)* (WQP(npw)) and
- *Sewage Management Plan* (SMP).

The audit covered all elements of the Stage 2 scheme arrangements as described in **Section 2.2**, including the Stage 1 (Interim Scheme) arrangements in respect of which the management plans have previously been assessed.⁵ It specifically excludes the proposed irrigation scheme and any associated infrastructure.

2.3.2 Audit Standard

The audit has been undertaken in accordance with the principles/guidance presented in:

- ISO 19011:2011 *Guidelines for auditing management systems*; and
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018 (WIC Act Audit Guidelines).

⁴ IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

⁵ Cobbitty Consulting/Water Futures, *Catherine Hill Bay Water Utility; Licence Plan Audit (Stage 1 – Interim Scheme)* (Version 2.0), 16 August 2017.

2.3.3 Audit Steps

The audit has been undertaken generally in accordance with the procedure outlined in the *WTC Act Audit Guidelines*.

Following approval of an *Audit Proposal* by IPART, an *Audit Agenda* and *Information Request* were sent to both the Licensee and IPART approximately one week prior to the audit fieldwork being undertaken. Audit fieldwork comprising a site inspection of existing infrastructure and a desktop audit of relevant documentation/records was undertaken on 18 October 2018. Some additional items of information and/or clarification were requested following the audit fieldwork and subsequently provided.

A draft audit report was prepared and submitted to both the Licensee and IPART on 25 November 2018 for review/comment before being finalised. Catherine Hill Bay Water advised that it had no comments in respect of the draft report; no comment has been received from IPART at the time of finalising the report.

The audit process involved seeking objective evidence that the Licensee had complied with the obligations identified for audit by IPART. Evidence was obtained through interview, review of relevant documentation and records, and site inspection.

2.3.4 Audit Team

The audit was conducted by Jim Sly and Dr Dan Deere, both of whom hold the required Lead Auditor accreditation on IPART's Technical Services and Water Licensing Panel. The two auditors collectively addressed the various components of the audit, as follows:

- Jim Sly – audit team lead and audit of the *Infrastructure Operating Plan* and *Sewage Management Plan* components; and
- Dan Deere – audit of the *Drinking Water Quality Plan* and *Recycled Water Quality Plan* components.





Quality assurance review of the audit reports was undertaken by each auditor reviewing the other auditor's work.

Catherine Hill Bay Water was represented by Rhys Richards (Director), Brad Irwin (Environmental Engineer/New Schemes Manager), Craig Heininger (Water Utility Engineer /Operations Manager), Ronnie Paine (Water and Wastewater Systems Operator) and Ross Pascoe (Site Supervisor). IPART representative Jessica Hanna attended as an observer during the audit fieldwork.

2.3.5 Audit Grades

Audit grades have been awarded in accordance with guidance presented in the *WTC Act Audit Guidelines*. The compliance grades applicable for the purposes of this audit were as identified in **Table 2.1**.

Table 2.1 Audit Compliance Grades

Compliance Grade	Description
 Compliant	Sufficient evidence is available to confirm that the requirements have been met.
 Non-compliant (non-material)	Sufficient evidence is not available to confirm that the requirements have been met and the deficiency does not adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 Non-compliant (material)	Sufficient evidence is not available to confirm that the requirements have been met and the deficiency does adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 No Requirement	There was no requirement for the Licensee to meet this criterion during the audit period.

2.4 Regulatory Regime

The Catherine Hill Bay Water schemes operate in accordance with the provisions of a Network Operator's Licence (Licence No: 16_035) issued under the *Water Industry Competition Act 2006* (NSW). Other relevant regulatory instruments and standards/guidelines include:

- *Water Industry Competition (General) Regulation 2008 (NSW)*;
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018;
- *Australian Drinking Water Guidelines 2011 (as amended 2016)*;
- *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006*;
- *Plumbing Code of Australia*;
- *Plumbing and Drainage Act 2011 (NSW)*; and
- NSW and national water industry and environmental regulations and codes of practice as applicable.

2.5 Quality Assurance Process

The quality of this audit report was assured through a professional review process. The report has been independently reviewed by a Lead Auditor who holds relevant accreditation on IPART's Technical Services and Water Licensing Panel.

2.6 Audit Findings

Audit findings are summarised in the following **Sections 3 to 6**, and are presented in full detail in **Appendices A to D**.

3. Infrastructure Operating Plan

3.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to the *Infrastructure Operating Plan*. Detailed assessment in respect of these clauses is presented in **Appendix A**.

3.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

3.3 Opportunities for Improvement

The following opportunity for improvement has been identified in respect of the audited *WTC Regulation* clauses related to the *Infrastructure Operating Plan*:

- **OFI-CHB2-LPA.01:** It is suggested that Catherine Hill Bay Water includes more specific details in respect of the continuity of sewerage services in the *Infrastructure Operating Plan* (similar to that provided in respect of the continuity of water supply).

4. Water Quality Plan (Drinking Water)

4.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to the *Water Quality Plan (Drinking Water)*. Detailed assessment in respect of these clauses is presented in **Appendix B**.

4.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

4.3 Opportunities for Improvement

The following opportunities for improvement have been identified in respect of the audited *WTC Regulation* clauses related to the *Water Quality Plan (Drinking Water)*:

- **OFI-CHB2-LPA.02:** It is suggested that Catherine Hill Bay Water considers including a summary of the drinking water CCP details in its *Drinking Water Quality Management Plan*, consistent with the requirements of NSW Health.
- **OFI-CHB2-LPA.03:** It is suggested that Catherine Hill Bay Water revises the identification of “Hazard(s) of Concern” in its CCP tables to distinguish between virus, bacteria and protozoa, thereby making it clear which barriers are effective for each pathogen.
[This OFI is also applicable in respect of recycled water.]

5. Water Quality Plan (Non-potable Water)

5.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to the *Water Quality Plan (Non-potable Water)*. Detailed assessment in respect of these clauses is presented in **Appendix C**.

5.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

5.3 Opportunities for Improvement

The following opportunity for improvement has been identified in respect of the audited *WTC Regulation* clauses related to the *Water Quality Plan (Non-potable Water)*:

- **OFI-CHB2-LPA.03:** It is suggested that Catherine Hill Bay Water revises the identification of “Hazard(s) of Concern” in its CCP tables to distinguish between virus, bacteria and protozoa, thereby making it clear which barriers are effective for each pathogen.
[This OFI is also applicable in respect of drinking water.]

6. Sewage Management Plan

6.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to the *Sewage Management Plan*. Detailed assessment in respect of these clauses is presented in **Appendix D**.

6.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

6.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited *WIC Regulation* clauses related to the *Sewage Management Plan*.



Catherine Hill Bay Water Utility

New Infrastructure Audit (Stage 2 Scheme)

#14071-10-002 Version 2.0

Independent Pricing and Regulatory Tribunal

November 2018

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Catherine Hill Bay Water Utility

New Infrastructure Audit
(Stage 2 Scheme)

Independent Pricing and Regulatory Tribunal

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1. Executive Summary

1.1 Auditor Declaration

This report presents the findings of a New Infrastructure Audit of Catherine Hill Bay Water Utility Pty Ltd's compliance with the requirements of its Network Operator's Licence (Licence No: 16_035) and the relevant provisions of the *Water Industry Competition (General) Regulation 2008* as they relate to the drinking water, sewerage and recycled water schemes at Catherine Hill Bay.

The auditor confirms that:

- the auditor was provided with sufficient evidence on which to base the conclusions reached during the audit;
- the audit findings accurately reflect the professional opinion of the auditor;
- the auditor has conducted the audit, determined the audit findings and prepared this report in accordance with the requirements of the *WIC Act Audit Guidelines*¹ and the provisions of the Audit Deed; and
- the audit findings have not been unduly influenced by the Licensee and/or any of its associates and express the auditor's opinion as to whether the Licensee has met the Licence conditions and regulatory requirements as specified in the scope.

1.2 Major Findings

The Licensee, Catherine Hill Bay Water Utility Pty Ltd, was found to have designed and constructed and to be able to operate and maintain the audited drinking water, sewerage and recycled water schemes in compliance with the assessed audit criteria, with the exception of the following:

- **Network Operator's Licence clause B10.3** – although a Licensee's Code of Conduct (draft *Code of Conduct*) that addresses the requisite matters has been established, it has not yet been formally agreed in writing by the two parties notwithstanding a letter of intent from Central Coast Council to do so. At the time of reporting, the draft *Code of Conduct* remains in place and IPART has accepted a Voluntary Undertaking from Catherine Hill Bay Water in respect of this matter.

1.3 Recommendations

The following recommendation has been made as a result of this audit:

- **REC-CHB2-NIA.01:** It is recommended that Catherine Hill Bay Water takes action to ensure that it updates the draft *Code of Conduct* (as necessary) and agrees in writing a Licensee's Code of Conduct with Central Coast Council no later than 30 November 2019, as committed in the Voluntary Undertaking dated 8 October 2018 that has been accepted by IPART.

¹ IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

One (1) opportunity for improvement, which the Licensee may wish to consider, is identified in the body of the report.

1.4 Conclusion

Notwithstanding the identified non-compliance, in the opinion of the auditors the Licensee can commence commercial operation of the Stage 2 Scheme infrastructure² for the safe and reliable supply of drinking water and non-potable (recycled) water and the provision of sewerage services at Catherine Hill Bay.

The auditors support the approval of the commercial operation of these assets, which are to be operated under WICA Network Operator's Licence No: 16_035.

² Stage 2 Scheme infrastructure is as described in **Section 2.2**.

2. Introduction

2.1 Objectives

This report presents the findings of a New Infrastructure Audit undertaken for the Independent Pricing and Regulatory Tribunal (IPART) under the provisions of the *Water Industry Competition Act 2006*.

The objective of the audit was to assess compliance of the Licensee, Catherine Hill Bay Water Utility Pty Ltd (Catherine Hill Bay Water or CHBWU), in meeting the requirements of the relevant legislation (the *Water Industry Competition Act 2006* and *Water Industry Competition (General) Regulation 2008*) and its Network Operator's Licence (Licence No: 16_035) as they relate to the drinking water, sewerage and recycled water schemes at Catherine Hill Bay.

It is noted that a separately reported Licence Plan Audit³ was conducted in conjunction with this audit.

2.2 Licensee's Infrastructure, Systems and Procedures

The infrastructure, systems and procedures subject to audit are those related to the drinking water, sewerage and recycled water schemes (the Schemes) that will service "The Beaches" land and housing development at Catherine Hill Bay, approximately 20 kilometres south of Newcastle (refer <http://www.solowater.com.au/schemes/>). At the current stage of development, the Water Industry Infrastructure comprises:

- Stage 1 (which has previously been approved for commercial operation), including:⁴
 - a potable (drinking) water network that draws water from an existing bulk potable water supply, with an inline chlorine monitoring and dosing system;
 - a pressure sewer collection network, together with an interim pump out tank (for disposal of sewage by road tanker); and
 - a non-potable (recycled) water network, which has initially been charged with potable water via a cross connection from the potable water supply located downstream of the chlorine dosing point.
- Stage 2 (for which approval for commercial operation is now sought and is the subject of this audit), including:
 - a treatment plant for the production of recycled water from sewage;
 - facilities for the on-site storage of recycled water prior to distribution; and
 - on-site drinking water storage and chlorine dosing facility.

Once the Stage 2 infrastructure has been approved for commercial operation, the non-potable water network will be charged with recycled water. Surplus recycled water will be transported offsite until an irrigation system, which will be incorporated as part of Stages 6 and 7 of the land development, is commissioned. The proposed irrigation system will be subject to future audit and approval, and is not included in the scope of this audit.

³ Cobbitty Consulting/Water Futures, *Catherine Hill Bay Water Utility; Licence Plan Audit (Stage 2 Scheme)* (Version 2.0), November 2018.

⁴ Minister for Energy and Utilities, *Notice of approval to bring new infrastructure into commercial operation*, 27 October 2017.

Catherine Hill Bay Water Utility Pty Ltd (ACN 163 381 922) is the Licensee, holding Network Operator's Licence No: 16_035. As Licensee, Catherine Hill Bay Water will own and/or be responsible for the ongoing operation and maintenance of the drinking water network, sewerage network and the recycled water network (under the Stage 2 arrangements) in accordance with its Licence Plans including:

- Solo Water, *Catherine Hill Bay Water Utility; Infrastructure Operating Plan; Stage 2* (reference: IMS-OPER-B-8297-SW) (Revision 2.1), 5 November 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Drinking Water Quality Management Plan; Stage 2* (reference: IMS-ENVM-B-3727-SW) (Revision 2.0), 31 August 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Recycled Water Quality Management Plan; Stage 2* (reference: IMS-ENVM-B-3727-SW) (Revision 1.1), 5 November 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Sewage Management Plan; Stage 2* (reference: IMS-ENVM-B-3728-SW) (Revision 2.1), 5 November 2018; and
- other relevant supporting documentation.

It is noted that the *Infrastructure Operating Plan*, *Recycled Water Quality Management Plan* and *Sewage Management Plan* were updated during the audit process to remove reference to the use of recycled water for construction purposes. Whilst it is understood that this use was identified in the management plans submitted with Catherine Hill Bay Water's licence application, and is a use for which the supplied water would be suitable and safe, it was not reflected in the granted Licence.

2.3 Audit Method

2.3.1 Audit Scope

The audit comprised a New Infrastructure Audit conducted pursuant to the *WIC Act Audit Guidelines*.⁵ The specific scope of the audit addresses selected requirements of:

- the *Water Industry Competition (General) Regulation 2008*; and
- Network Operator's Licence No: 16_035;

in relation to the infrastructure that is proposed to be brought into commercial operation, which includes:

- a treatment plant for the production of recycled water from sewage;
- facilities for the on-site storage of recycled water prior to distribution; and
- on-site drinking water storage and chlorine dosing facility.

The audit scope specifically excludes the proposed irrigation scheme and associated infrastructure that are to be brought into commercial operation at a future date.

2.3.2 Audit Standard

The audit has been undertaken in accordance with the principles/guidance presented in:

- ISO 19011:2011 *Guidelines for auditing management systems*; and
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018 (WIC Act Audit Guidelines).

⁵ IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

2.3.3 Audit Steps

The audit has been undertaken generally in accordance with the procedure outlined in the *WTC Act Audit Guidelines*.

Following approval of an *Audit Proposal* by IPART, an *Audit Agenda* and *Information Request* were sent to both the Licensee and IPART approximately one week prior to the audit fieldwork being undertaken. Audit fieldwork comprising a site inspection of existing infrastructure and a desktop audit of relevant documentation/records was undertaken on 18 October 2018. Some additional items of information and/or clarification were requested following the audit fieldwork and subsequently provided.

A draft audit report was prepared and submitted to both the Licensee and IPART for review/comment before being finalised.

The audit process involved seeking objective evidence that the Licensee had complied with the obligations identified for audit by IPART. Evidence was obtained through interview, review of relevant documentation and records, and site inspection.

2.3.4 Audit Team

The audit was conducted by Jim Sly and Dr Dan Deere, both of whom hold the required Lead Auditor accreditation on IPART's Technical Services and Water Licensing Panel. The two auditors collectively addressed the various components of the audit.





Quality assurance review of the audit reports was undertaken by each auditor reviewing the other auditor's work.

Catherine Hill Bay Water was represented by Rhys Richards (Director), Brad Irwin (Environmental Engineer/New Schemes Manager), Craig Heininger (Water Utility Engineer /Operations Manager), Ronnie Paine (Water and Wastewater Systems Operator) and Ross Pascoe (Site Supervisor). IPART representative Jessica Hanna attended as an observer during the audit fieldwork.

2.3.5 Audit Grades

Audit grades have been awarded in accordance with guidance presented in the *WTC Act Audit Guidelines*. The compliance grades applicable for the purposes of this audit were as identified in **Table 2.1**.

Table 2.1 Audit Compliance Grades

Compliance Grade	Description
 Compliant	Sufficient evidence is available to confirm that the requirements have been met.
 Non-compliant (non-material)	Sufficient evidence is available to confirm that the requirements have been met and the deficiency does not adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 Non-compliant (material)	Sufficient evidence is available to confirm that the requirements have been met and the deficiency does adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 No Requirement	There was no requirement for the Licensee to meet this criterion during the audit period.

2.4 Regulatory Regime

The Catherine Hill Bay Water schemes operate in accordance with the provisions of a Network Operator's Licence (Licence No: 16_035) issued under the *Water Industry Competition Act 2006* (NSW). Other relevant regulatory instruments and standards/guidelines include:

- *Water Industry Competition (General) Regulation 2008* (NSW);
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018;
- *Australian Drinking Water Guidelines 2011 (as amended 2016)*;
- *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006*;
- *Plumbing Code of Australia*;
- *Plumbing and Drainage Act 2011* (NSW); and
- NSW and national water industry and environmental regulations and codes of practice as applicable.

2.5 Quality Assurance Process

The quality of this audit report was assured through a professional review process. The report has been independently reviewed by a Lead Auditor who holds relevant accreditation on IPART's Technical Services and Water Licensing Panel.

2.6 Audit Findings

Audit findings are summarised in the following **Section 3**, and are presented in full detail in **Appendix A**.

3. New Infrastructure

3.1 Summary of Findings

Under the provisions of *Water Industry Competition Act 2006*, the *Water Industry Competition (General) Regulation 2008* and the Network Operator's Licence, the Licensee is required to demonstrate the adequacy of any new infrastructure prior to it being introduced into service.

Catherine Hill Bay Water was found to be compliant with the audited clauses of the *Water Industry Competition (General) Regulation 2008* and the Network Operator's Licence as they apply to the Stage 2 Scheme drinking water, sewerage and recycled water infrastructure at Catherine Hill Bay, with the exception of the following:

- **Network Operator's Licence clause B10.3** – Non-compliant – Insignificant:
Although a Licensee's Code of Conduct has not yet been formally agreed, a draft *Code of Conduct* has been established and Central Coast Council has provided a letter indicating its intent to enter into the proposed *Code of Conduct* with Catherine Hill Bay Water (in relation to the supply of bulk potable water to the Catherine Hill Bay Water schemes). Review of the draft *Code of Conduct* available at the time of reporting reveals that it addresses the requisite matters, and there is no evidence that the terms of the proposed *Code of Conduct* have been contravened.

However, as the proposed *Code of Conduct* has not yet been formalised (agreed in writing by the two parties), Catherine Hill Bay Water has not demonstrated full compliance with this obligation. Given that the draft *Code of Conduct* remains in place and IPART has accepted a Voluntary Undertaking from Catherine Hill Bay Water in respect of this matter, the non-compliance is not considered to be material.

To achieve full compliance with clause B10, Catherine Hill Bay Water should ensure that it updates the draft *Code of Conduct* (as necessary) and agrees in writing a Licensee's Code of Conduct with Central Coast Council no later than 30 November 2019, as committed in the Voluntary Undertaking dated 8 October 2018 that has been accepted by IPART.

Detailed assessment in respect of this obligation is presented in **Table A.18** (refer **Appendix A**).

3.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

3.3 Opportunities for Improvement

One (1) opportunity for improvement has been identified in respect of the audited obligations, as follows:

- **OFI-CHB2-NIA.01:** It is suggested that Catherine Hill Bay Water reviews the SCADA system setup to ensure that the correct units are displayed on the AIT8011 UV Intensity setpoint screen.



Catherine Hill Bay Water Utility

Operational Audit (Stage 1 – Interim Scheme)

#14080-10-001 Version 2.1

Independent Pricing and Regulatory Tribunal

April 2019

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Catherine Hill Bay Water Utility

Operational Audit
(Stage 1 – Interim Scheme)

Independent Pricing and Regulatory Tribunal

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1. Executive Summary

1.1 Auditor Declaration

This report presents the findings of an Operational Audit of Catherine Hill Bay Water Utility Pty Ltd's compliance with the requirements of its Network Operator's Licence (Licence No: 16_035) and the relevant provisions of the *Water Industry Competition (General) Regulation 2008* as they relate to the drinking water, sewerage and recycled water schemes at Catherine Hill Bay.

The auditor confirms that:

- the auditor was provided with sufficient evidence on which to base the conclusions reached during the audit;
- the audit findings accurately reflect the professional opinion of the auditor;
- the auditor has conducted the audit, determined the audit findings and prepared this report in accordance with the requirements of the *WIC Act Audit Guidelines*¹ and the provisions of the Audit Deed; and
- the audit findings have not been unduly influenced by the Licensee and/or any of its associates and express the auditor's opinion as to whether the Licensee has met the Licence conditions and regulatory requirements as specified in the scope.

1.2 Major Findings

The Licensee, Catherine Hill Bay Water Utility Pty Ltd, was found to have designed, constructed operated and maintained the audited Stage 1 (Interim Scheme) drinking water, sewerage and recycled water schemes at Catherine Hill Bay in compliance with the assessed audit criteria, with the exception of the following:

- **Network Operator's Licence clause B10** – although a Licensee's Code of Conduct (draft *Code of Conduct*) that addresses the requisite matters has been established, it has not yet been formally agreed in writing by the two parties notwithstanding a letter of intent from Central Coast Council to do so. At the time of reporting, the draft *Code of Conduct* remains in place and IPART has accepted a Voluntary Undertaking from Catherine Hill Bay Water in respect of this matter.

1.3 Recommendations

The following recommendation has been made as a result of this audit:

- **REC-CHB1-2019.01:** It is recommended that Catherine Hill Bay Water takes action to ensure that it updates the draft *Code of Conduct* (as necessary) and agrees in writing a Licensee's Code of Conduct with Central Coast Council no later than 30 November 2019, as committed in the Voluntary Undertaking dated 8 October 2018 that has been accepted by IPART.

*(This recommendation is a restatement of recommendation **REC-CHB2-NIA.01** made in the Stage 2 Scheme New Infrastructure Audit Report).*

¹ IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

One (1) opportunity for improvement, which the Licensee may wish to consider, is identified in the body of the report.

2. Introduction

2.1 Objectives

This report presents the findings of an Operational Audit undertaken for the Independent Pricing and Regulatory Tribunal (IPART) under the provisions of the *Water Industry Competition Act 2006*.

The objective of the audit was to assess compliance of the Licensee, Catherine Hill Bay Water Utility Pty Ltd (Catherine Hill Bay Water or CHBWU), in meeting the requirements of the relevant legislation (the *Water Industry Competition Act 2006* and *Water Industry Competition (General) Regulation 2008*) and its Network Operator's Licence (Licence No: 16_035) as they relate to the Stage 1 (Interim Scheme) drinking water, sewerage and recycled water schemes at Catherine Hill Bay.

2.2 Licensee's Infrastructure, Systems and Procedures

The infrastructure, systems and procedures subject to audit are those related to the drinking water, sewerage and recycled water schemes (the Schemes) that service "The Beaches" land and housing development at Catherine Hill Bay, approximately 20 kilometres south of Newcastle (refer <http://www.solowater.com.au/schemes/>). The Water Industry Infrastructure comprises:

- Stage 1 (which was approved for and commenced commercial operation in October 2017),² including:
 - a potable (drinking) water network that draws water from an existing bulk potable water supply, with an inline chlorine monitoring and dosing system;
 - a pressure sewer collection network, together with an interim pump out tank (for disposal of sewage by road tanker); and
 - a non-potable (recycled) water network, which was initially charged with potable water via a cross connection from the potable water supply located downstream of the chlorine dosing point.
- Stage 2 (which was approved for and commenced commercial operation in December 2018),³ including:
 - a treatment plant for the production of recycled water from sewage;
 - facilities for the on-site storage of recycled water prior to distribution; and
 - on-site drinking water storage and chlorine dosing facility.

The Stage 1 (Interim Scheme) infrastructure was designed, constructed and brought into commercial operation within the audit period, and was subsequently operated and maintained during the remainder of the audit period. Accordingly, the Stage 1 phase of the development is the principal subject of this audit.

Design and construction of the Stage 2 Scheme infrastructure was commenced during, but was not completed until subsequent to the audit period; no operation or maintenance of the Stage 2 infrastructure was undertaken. Accordingly, only obligations related to design and construction of the Stage 2 phase of the development are the subject of this audit.

² Minister for Energy and Utilities, *Notice of approval to bring new infrastructure into commercial operation*, 27 October 2017.

³ Minister for Energy and Utilities, *Notice of approval to bring new infrastructure into commercial operation*, 13 December 2018 and Minister for Energy and Utilities, *Notice of approval to bring new infrastructure into commercial operation*, 18 January 2019.

It is noted that, until commercial operation of the Stage 2 Scheme infrastructure commenced (which was subsequent to the audit period), the non-potable (recycled) water network was charged with potable water. No recycled water was supplied to customers during the audit period.

Catherine Hill Bay Water Utility Pty Ltd (ACN 163 381 922) is the Licensee, holding Network Operator's Licence No: 16_035. As Licensee, Catherine Hill Bay Water owns and is responsible for the ongoing operation and maintenance of the drinking water network, sewerage network and the recycled water network in accordance with its management plans (Licence Plans).

Versions of the management plans in place during the audit period (i.e. in respect of the Stage 1 (Interim Scheme) infrastructure) included:

- Solo Water, *Infrastructure Operating Plan; Catherine Hill Bay Water Utility Interim Scheme* (reference: IMS-OPER-B-8297-SW) (Revision 1.0), 13 June 2017;
- Solo Water, *Drinking Water Quality Management Plan; Catherine Hill Bay Water Utility Interim Scheme* (reference: IMS-ENVM-B-3727-SW) (Revision 1.0), 13 June 2017; and
- Solo Water, *Sewage Management Plan; Catherine Hill Bay Water Utility Interim Scheme* (reference: IMS-ENVM-B-3728-SW) (Revision 1.0), 13 June 2017.

Versions of the management plans currently in place include:

- Solo Water, *Catherine Hill Bay Water Utility; Infrastructure Operating Plan; Stage 2* (reference: IMS-OPER-B-8297-SW) (Revision 2.1), 5 November 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Drinking Water Quality Management Plan; Stage 2* (reference: IMS-ENVM-B-3727-SW) (Revision 2.0), 31 August 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Recycled Water Quality Management Plan; Stage 2* (reference: IMS-ENVM-B-3727-SW) (Revision 1.1), 5 November 2018; and
- Solo Water, *Catherine Hill Bay Water Utility; Sewage Management Plan; Stage 2* (reference: IMS-ENVM-B-3728-SW) (Revision 2.1), 5 November 2018.

2.3 Audit Method

2.3.1 Audit Scope

The audit comprised an Operational Audit conducted pursuant to the *WIC Act Audit Guidelines*.⁴ The specific scope of the audit was as defined in IPART's letter to Catherine Hill Bay Water (reference D18/22801) dated 4 September 2018; the nominated scope addresses selected requirements of:

- the *Water Industry Competition (General) Regulation 2008*; and
- Network Operator's Licence No: 16_035.

The subject of the audit was principally the Stage 1 (Interim Scheme) infrastructure, as described in **Section 2.2**; however, it also assesses activities associated with design and construction of the Stage 2 Scheme infrastructure to the extent applicable during the audit period.

⁴ IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

2.3.2 Audit Standard

The audit has been undertaken in accordance with the principles/guidance presented in:

- ISO 19011:2011 *Guidelines for auditing management systems*; and
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018 (WIC Act Audit Guidelines).

2.3.3 Audit Steps

The audit has been undertaken generally in accordance with the procedure outlined in the *WIC Act Audit Guidelines*.

Following approval of an *Audit Proposal* by IPART, an *Audit Agenda* and *Information Request* were sent to both the Licensee and IPART prior to the audit fieldwork being undertaken. Audit fieldwork comprising a site inspection of existing infrastructure and a desktop audit of relevant documentation/records was undertaken on 24 January 2019. Some additional items of information and/or clarification were requested following the audit fieldwork and subsequently provided.

A draft audit report was prepared and submitted to the Licensee for review/comment, before being finalised and issued to both the Licensee and IPART.

The audit process involved seeking objective evidence that the Licensee had complied with the obligations identified for audit by IPART. Evidence was obtained through interview, review of relevant documentation and records, and site inspection.

2.3.4 Audit Team





The audit was conducted by Jim Sly and a peer/quality assurance review was undertaken by Dr Dan Deere. Both auditors hold relevant Lead Auditor accreditation on IPART's Technical Services and Water Licensing Panel.

Catherine Hill Bay Water was represented by Brad Irwin (Environmental Engineer/New Schemes Manager), Craig Heininger (Water Utility Engineer /Operations Manager), Ronnie Paine (Water and Wastewater Systems Operator), Alan Irving (Site Manager) and Ross Pascoe (Site Supervisor). IPART representative Jamie Luke attended as an observer during the audit fieldwork.

2.3.5 Audit Grades

Audit grades have been awarded in accordance with guidance presented in the *WIC Act Audit Guidelines*. The compliance grades applicable for the purposes of this audit were as identified in **Table 2.1**.

Table 2.1 Audit Compliance Grades

Compliance Grade	Description
 Compliant	Sufficient evidence is available to confirm that the requirements have been met.
 Non-compliant (non-material)	Sufficient evidence is not available to confirm that the requirements have been met and the deficiency does not adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 Non-compliant (material)	Sufficient evidence is not available to confirm that the requirements have been met and the deficiency does adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 No Requirement	There was no requirement for the Licensee to meet this criterion during the audit period.

2.4 Regulatory Regime

The Catherine Hill Bay Water schemes operate in accordance with the provisions of a Network Operator's Licence (Licence No: 16_035) issued under the *Water Industry Competition Act 2006* (NSW). Other relevant regulatory instruments and standards/guidelines include:

- *Water Industry Competition (General) Regulation 2008 (NSW)*;
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018;
- *Australian Drinking Water Guidelines 2011 (as amended August 2018)*;
- *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006*;
- *Plumbing Code of Australia*;
- *Plumbing and Drainage Act 2011 (NSW)*; and
- NSW and national water industry and environmental regulations and codes of practice as applicable.

2.5 Quality Assurance Process

The quality of this audit report was assured through a professional review process. The report has been independently reviewed by a Lead Auditor who holds relevant accreditation on IPART's Technical Services and Water Licensing Panel.

2.6 Audit Findings

Audit findings are summarised in the following **Sections 3 to 8**, and are presented in full detail in **Appendices A to F**.

3. Water Supply Infrastructure

3.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to *Water Supply Infrastructure* (refer to **Appendix A** for detailed audit findings).

3.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

3.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited *WIC Regulation* clauses related to the *Water Supply Infrastructure*:

4. Non-Potable Water Supply Infrastructure

4.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to *Non-Potable Water Supply Infrastructure* (refer to **Appendix B** for detailed audit findings).

4.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

4.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited *WIC Regulation* clauses related to the *Non-Potable Water Supply Infrastructure*.

5. Sewerage Infrastructure

5.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to *Sewerage Infrastructure* (refer to **Appendix C** for detailed audit findings).

5.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

5.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited *WIC Regulation* clauses related to the *Sewerage Infrastructure*.

6. General Obligations of a Network Operator

6.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* that address the *General Obligations of a Network Operator* (refer to **Appendix D** for detailed audit findings).

6.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

6.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited *WIC Regulation* clauses that address the *General Obligations of a Network Operator*.

7. Schedule A to the Network Operator's Licence

7.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of *Schedule A to the Network Operator's Licence* (refer to **Appendix E** for detailed audit findings)

7.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

7.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited clauses of *Schedule A to the Network Operator's Licence*.

8. Schedule B to the Network Operator's Licence

8.1 Summary of Findings

Catherine Hill Bay Water was found not to be fully compliant with the audited clauses of *Schedule B to the Network Operator's Licence* (refer to **Appendix F** for detailed audit findings), as follows:

- **Network Operator's Licence clause B10** – Non-compliant – non-material:

As reported in respect of the Stage 2 Scheme New Infrastructure Audit, although a Licensee's Code of Conduct has not yet been formally agreed, a draft *Code of Conduct* has been established and Central Coast Council has provided a letter indicating its intent to enter into the proposed *Code of Conduct* with Catherine Hill Bay Water (in relation to the supply of bulk potable water to the Catherine Hill Bay Water schemes). Review of the draft *Code of Conduct* available at the time of reporting reveals that it addresses the requisite matters, and there is no evidence that the terms of the proposed *Code of Conduct* have been contravened.

However, as the proposed *Code of Conduct* has not yet been formalised (agreed in writing by the two parties), Catherine Hill Bay Water has not demonstrated full compliance with this obligation. Given that the draft *Code of Conduct* remains in place and IPART has accepted a Voluntary Undertaking from Catherine Hill Bay Water in respect of this matter, the non-compliance is not considered to be material.

To achieve full compliance with clause B10, Catherine Hill Bay Water should ensure that it updates the draft *Code of Conduct* (as necessary) and agrees in writing a Licensee's Code of Conduct with Central Coast Council no later than 30 November 2019, as committed in the Voluntary Undertaking dated 8 October 2018 that has been accepted by IPART.

Detailed assessment in respect of this obligation is presented in **Table F.6**.

8.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

8.3 Opportunities for Improvement

The following opportunity for improvement has been identified in respect of the audited clauses of *Schedule B to the Network Operator's Licence*.

- **OFI-CHB1-2019.01:** It is suggested that Catherine Hill Bay Water develops and implements a procedure to ensure that any changes in insurance arrangements are identified and specifically notified to IPART in accordance with the *Reporting Manual*.



Environmentally Certified

Certificate of Registration

Solo Water Pty Ltd

ABN: 11 160 013 614

86-88 Chinderah Bay Drive, CHINDERAH, NSW, 2487, Australia

operates an

Environmental Management System

which complies with the requirements of:

ISO 14001:2015

The registration covers the water utility services for the provision of the drinking water, sewerage and recycles water services.

Original Certification: 20 November 2018
Certification Decision/Reissue Date: 20 November 2018

Registration No: AU1373C-QC-EC
Expiry Date: 30 November 2020

Craig J Bates
President
TQCS International (Group) Pty Ltd

For the TQCSI Certification Approval Panel

Sean Bates
Accreditation Manager
TQCS International Pty Ltd

This certificate verifies the original certificate issued and is valid as long as it is displayed as an electronic copy at www.tqcsi.com and surveillance audits are satisfactorily completed. TQCS International Pty Ltd (ABN 59 065 953 924) of Quality House, 117A Tapleys Hill Road, Hendon, SA, 5014, Australia issues certification subject to the TQCSI Rules of Certification.



www.tqcsi.com



www.aacb.com.au



www.iaf.nu



www.jas-anz.org/register



Quality Certified

Certificate of Registration

Solo Water Pty Ltd

ABN: 11 160 013 614

86-88 Chinderah Bay Drive, CHINDERAH, NSW, 2487, Australia

operates a

Quality Management System

which complies with the requirements of:

ISO 9001:2015

The registration covers the water utility services for the provision of the drinking water, sewerage and recycled water services.

Original Certification: 20 November 2018
Certification Decision/Reissue Date: 20 November 2018

Registration No: AU1373C-QC-EC
Expiry Date: 30 November 2020

Craig J Bates
President
TQCS International (Group) Pty Ltd

For the TQCSI Certification Approval Panel

Sean Bates
Accreditation Manager
TQCS International Pty Ltd

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[TQCS International Pty Ltd](http://www.tqcsi.com)



www.aacb.com.au



www.iaf.nu

JAS-ANZ



www.jas-anz.org/register



Safety Certified

Certificate of Registration

Solo Resource Recovery

ABN:62 398 515 816

86-88 Chinderah Bay Drive, CHINDERAH, NSW, 2487, Australia

Additional Sites: Refer to Schedule

operates a

Safety Management System

which complies with the requirements of:

AS/NZS 4801:2001

The registration covers residential and commercial waste collection, handling and transportation, the transportation of hazardous and non-hazardous waste, including disposal of sewer waste, at all sites except Heatherbrae and WA Naval Base, which provide industrial services, including vacuum excavation, underground asset location, CCTV investigation, survey investigation, drain cleaning, high pressure blasting and bulk liquid waste transportation.

Original Certification: 7 November 2014
Certification Decision/Reissue Date: 21 November 2017

Registration No: AU1373A-QC-EC-SC-SC
Expiry Date: 30 November 2020

Craig J Bates
President
TQCS International (Group) Pty Ltd

For the TQCSI Certification Approval Panel

Lorraine Welsh
Accreditation Manager
TQCS International Pty Ltd

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[TQCS International Pty Ltd](http://www.tqcsi.com)



www.aacb.com.au



www.jas-anz.org/register



Safety Certified

Certificate of Registration

Solo Resource Recovery

ABN:62 398 515 816

86-88 Chinderah Bay Drive, CHINDERAH, NSW, 2487, Australia

Additional Sites: Refer to Schedule

operates a

Safety Management System

which complies with the requirements of:

OHSAS 18001:2007

The registration covers residential and commercial waste collection, handling and transportation, the transportation of hazardous and non-hazardous waste, including disposal of sewer waste, at all sites except Heatherbrae and WA Naval Base, which provide industrial services, including vacuum excavation, underground asset location, CCTV investigation, survey investigation, drain cleaning, high pressure blasting and bulk liquid waste transportation.

Original Certification: 12 March 2013
Certification Decision/Reissue Date: 21 November 2017

Registration No: AU1373A-QC-EC-SC-SC
Expiry Date: 30 November 2020

Craig J Bates
President
TQCS International (Group) Pty Ltd

For the TQCSI Certification Approval Panel

Lorraine Welsh
Accreditation Manager
TQCS International Pty Ltd

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[TQCS International Pty Ltd](http://www.tqcsi.com)



www.aacb.com.au



www.jas-anz.org/register

POSITION IDENTIFICATION

Title	Planning and New Schemes Manager
Functional Area	Solo Water
Reports to	Solo Water Management

POSITION OBJECTIVE

Primary Purpose of Position – To manage and coordinate new Solo Water schemes through the planning, approvals, licencing and conceptual design phase to ensure all new Solo Water schemes are sustainable from both an environmental and cost perspective.

This role involves negotiations with IPART, EPA, Councils, Water Utilities, Health, the community and other key stakeholders and government agencies.

This role will also provide technical support across all aspects of the Solo Water business including construction, operations and retail.

The Planning and New Schemes Manager is required to actively seek out new projects and promote the Solo Water brand throughout the water and land development industries.

Decision Making Standards with the Position - Due to the industry level of experience required to hold this position, the role will experience a large degree of accountability and autonomy combined with conditional shareholder support to achieve the defined quality and financial company objectives. It is a position that reflects a message of strong but fair leadership with an unconditional necessity to implement successful performance management strategies.

A Planning and New Schemes Manager shall have the authority to carry out the duties required by this position description.

SPECIFIC RESPONSIBILITIES

Planning New Schemes

- Ensure all new Solo Water scheme are sustainable from an environmental, social and economic perspective.
- Manage the planning approvals process for new scheme in a timely manner consistent with the program of the land development and regulatory requirements.
- Manage the IPART application process in a timely manner to have new schemes added to the Solo Water portfolio.
- Continue to refine and improve the Solo Water decentralised model and strive towards best practice in the water and land development industries.
- Actively seek out new projects and increase awareness of the Solo Water brand in the water and land development industries.

Project and Operations Management

- Actively manage our Land development clients to ensure achievement of mutually agreeable goals.
- Deliver planning and approvals project phases in a timely manner and in line with the corporate and project budgets.
- Actively manage all consultants and contractors involved in the planning and approvals phase to ensure quality project proposals.
- Provide high level guidance and technical support to all Solo Water teams including construction, operations, retail and compliance.
- Comply with internal project and budget reporting requirements.

People Management

- Must have a “hands-on” management approach.
- Present a pleasant professional attitude at all times.
- Ensure role model behaviours are adhered to by all company staff and management.
- Ensure you and your teams adherence to legal and policy requirements (E.G Workplace Health and Safety, policies, harassment and discrimination laws)
- Ensure expectations are clearly understood with current position descriptions and employee performance plans in place.
- Carry out consistent coaching, training and succession planning at all times to ensure development of people with understanding and adherence to company standards.
- Follow Company guidelines for any disciplinary or reward actions as required.

Other Responsibilities

- Be active in growing the company
- Be accepting & willing to grow with the company
- General duties as required to assist colleagues and company performance
- Other Tasks may be assigned from time to time which contributes to the overall success of the company.

KEY PERFORMANCE OBJECTIVES

- Quality Safety & Environment at Site for personnel & sub-contractors, during planning and approvals phases.
- Ensure licence and planning approval conditions are appropriate for the schemes.
- Assist with compliance auditing and review schemes to ensure they are being operated and maintained as intended.
- Delivery of projects on time & on budget

- Performance to management approved budgeted sales and EBIT plans
- Performance to management approved budgeted returns on capital employed
- Consistent performance and achievements of group financial budget guidelines and KPI's
- Contribute to a consistent high level of customer satisfaction for Solo Water schemes.
- Quality of handover and succession planning outcomes
- Achieving growth by a brand profile built on a reputation of successful implementation and compliant operations
- Maintaining a position at the forefront of process, design and implementation
- Successful registration of required patents, inventions, IP and design

COMPETENCIES REQUIRED

The following competencies are required for this position:

Communication	Utilise high level communication skills to ensure Solo Water planning and approvals phases are conducted in compliance with policies and procedures.
Team Work	Lead and encourage team work in order to build efficiencies and maximise operational output.
Problem Solving	Draw on previous knowledge and skills to solve problems as they arise, effectively and efficiently.
Self Management	Function effectively autonomously. Be proactive in your self-management to ensure deadlines are met.
Planning and Organisation	Plan, co-ordinate and direct work accordingly to ensure completion by deadlines and budget targets.
Technology	Utilise available technologies to complete tasks as required.
Learning	Identify gaps and take necessary steps to encourage learning in the workplace.
Initiative and enterprise	Use initiative and think outside the box; maintain high levels of innovation to ensure the Company remains at the forefront of the waste management industry.

PERSON SPECIFICATION QUALIFICATIONS/ KNOWLEDGE/ EXPERIENCE

Qualifications – Essential:

- (a) Engineering Degree, preferably environmental engineering.
- (b) Team Building / Management

Qualifications – Desirable:

- a) At the discretion of the General Manager

Knowledge, Skills & Experience (Essential):

- (a) Minimum 10 years experience within the water industry focusing on planning and conceptual design of new schemes
- (b) Knowledge of planning and approval process for the water industry
- (c) Knowledge of land development master planning processes
- (d) Water and Wastewater Design, Development, Construction and Operations

Knowledge, Skills & Experience (Desirable):

- a) At the discretion of the General Manager

WORK HEALTH AND SAFETY

General

The Work Health and Safety Objectives form an essential part of this role and it is imperative that these Objectives are achieved. The achievement of these objectives will form part of the employees annual Staff Development Review.

- (a) Ensure employees care for their own health and safety and that of others.
- (b) Ensure Lockout Tags are used in accordance with work procedure IMS-SAFE-D-4806.
- (c) Work safely and maintain a safe workplace.
- (d) Ensure that you present as "Fit for Work" at all times.
- (e) Avoid taking risks.
- (f) Ensure that before starting a new job, that correct procedure is known.
- (g) Report and hazards immediately.
- (h) Submit own ideas towards safety.
- (i) Wear protective clothing where necessary or as indicated by signage.
- (j) Operate equipment in a safe manner.

QUALITY

- (a) To ensure that the dealing with customers and other company staff is supportive of the company's commitment to quality service.
- (b) Ensure that all work is of the highest standard, to minimize reliability of service to customers.
- (c) Ensure that the dealings with customers and other company employees are supportive of the Company's commitment to quality service.
- (d) Ensure familiarization with the company's Integrated Management System (IMS).
- (e) Perform all duties of the position in accordance with all policies and procedures of the Integrated Management System (IMS).
- (f) Maintain standards and controls to ensure design and quality output is maintained to legislative and other legally required standards.
- (g) Set work programs in order of priority, to maximise best practices and achieve the highest quality.
- (h) Foster a collaborative and cooperative approach in all decision making.
- (i) Lead company alignment through appropriate, clear and direct communication.
- (j) Deliver industry leading quality outcomes through a programme of continuous improvement that develops our operational capability.

ENVIRONMENT

- (a) Be environmentally aware and pro-active in the approach to environmental management.
- (b) Ensure that new schemes are environmentally sustainable.
- (c) Strive towards water industry best practice
- (d) Contribute to the appropriate resolution of significant incidents that are escalated internally
- (e) Dispose of waste in an environmentally sound manner; recycling where appropriate.
- (f) Lead by example and encourage others to operate in an environmentally responsible manner.
- (g) Educate and ensure employees are following the correct environmental procedures, following legislative requirements and operating in an environmentally responsible manner.

ORGANISATIONAL RELATIONSHIPS / AUTHORITY

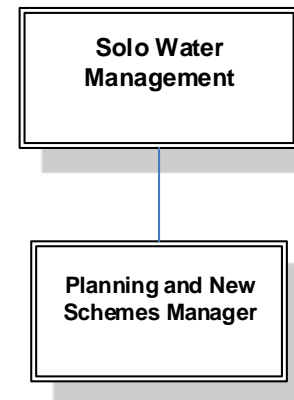
ORGANISATIONAL RELATIONSHIPS

Reports to: Solo Water Management

Manages: Project planning and approvals

Internal Contacts: Construction and Operational Teams
Design and Engineering Team
Sales, Marketing and Financial Teams
Retail teams

External Contacts: Land development clients
Consultants through planning, approvals, conceptual design and handover to construction, commissioning and operations and maintenance.
Solo Water Customers – e.g.: Ratepayers & Developers



ORGANISATIONAL AUTHORITY

Decisions made in the position: As advised throughout training.

Decisions Referred: As advised throughout training.

ACKNOWLEDGEMENT

This Position Description has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities and qualification required of employees assigned to the role.

POSITION IDENTIFICATION

Title	Water and Wastewater Utility Engineer
Functional Area	Solo Water
Reports to	Solo Water Management

POSITION OBJECTIVE

Primary Purpose of Position - To be able to develop the procedures required to meet the company's obligations under the IPART Licencing regime. Manage Site Staff. Responsible and accountable for the design, construction, development and implementation of a profitable compliant robust total water solution through waste water treatment plants, water treatment plants, pressure sewerage collection and recycling systems while establishing the Solo Water brand as an industry leader by premium quality of operations. Actively assist in growing the company.

Decision Making Standards with the Position - Due to the industry level of experience required to hold this position, the role will experience a large degree of accountability and autonomy combined with conditional shareholder support to achieve the defined quality and financial company objectives. It is a position that reflects a message of strong but fair leadership with an unconditional necessity to implement successful performance management strategies.

A Water and Wastewater Utility Engineer shall have the authority to carry out the duties required by this position description.

SPECIFIC RESPONSIBILITIES

Product Development Design and Engineering

- To continue to refine and develop existing designs and process to improve performance, implementation and operational capability and feasibilities.
- To manage design and engineering developments within company budgets.
- Focus on reducing the Solo Water Carbon Footprint through design and engineering.

Project and Operations Management

- Guarantee Water Quality through robust protection systems
- Ensure complete compliance with all QSE requirements.
- Manage on site staff – with a “hands-on” attitude.
- Be pro-active in the development of systems & procedures for the operations.
- Ensure that the IPART Licencing obligations are fully met with the continual improvement of internal procedures & practices.
- Be available after hours to assist with the management and escalation of incidents that may occur from time to time.

- Mentor and develop staff to obtain the best possible results from our human resources.
- Be willing to work on site to understand the process of construction & operations.
- Identify and eliminate any risk, financial or otherwise prior to any agreement to commence for any specific project implementation.
- Pro-actively manage the on-site Client & Sub-contractors relationships.
- Report to the management staged accurate progress updates in the required format when due.
- Ensure that all company procedures are adhered to.
- Ensure any invoice approved for payment is in fact complete with no residual exposure.
- Deliver project key stages on time in line with company and specific project budget.
- Meet project commissioning handover quality and operational standards with the relevant authorities to applicable compliance and company standards.
- Effectively manage works programmes and progress reporting meeting required authority compliance standards with a focus on delivering on-time and on budget.
- Effectively manage sub contractors and trades in line with required authority compliance standards in line with company budgets.
- Maintain a clean safe compliant work environment at all times.
- Continually review the security & operational risks on all sites and ensure there are adequate measures in place to eliminate or mitigate risk.
- To develop and implement new strategies to increase productivity, profitability and quality to enhance the delivery of the final product.
- Ensure company working capital targets are met to a return as nominated by the management.
- Immediately report to the management any abnormal variance or unbudgeted activity on any project.
- Immediately report to the management any increase in the company's financial risk profile.
- Immediately report to the management any threatened or pending litigation

People Management

- Must have a "hands-on" management approach.
- Present a pleasant professional attitude at all times.
- Ensure role model behaviours are adhered to by all company staff and management.
- Ensure you and your teams adherence to legal and policy requirements (E.G Workplace Health and Safety, policies, harassment and discrimination laws)
- Ensure expectations are clearly understood with current position descriptions and employee performance plans in place.

- Carry out consistent coaching, training and succession planning at all times to ensure development of people with understanding and adherence to company standards.
- Follow Company guidelines for any disciplinary or reward actions as required.

Other Responsibilities

- Be active in growing the company
- Be accepting & willing to grow with the company
- General duties as required to assist colleagues and company performance
- Other Tasks may be assigned from time to time which contributes to the overall success of the company.

KEY PERFORMANCE OBJECTIVES

- Quality Safety & Environment at Site for personnel & sub-contractors, during construction & operational phases
- Ensure that the operations meet or exceed all of the obligations set out under the IPART Licencing regime
- Development, implementation and integration of business systems to support operations, including IMS (Quality, Safety & Environment), Water Quality, Corporate Asset Management, GIS, & SCADA.
- Delivery of projects and operations on time & on budget
- Performance to management approved budgeted sales and EBIT plans
- Performance to management approved budgeted returns on capital employed
- Consistent performance and achievements of group financial budget guidelines and KPI's
- Consistent premium quality of operations and outcomes
- Consistent high level of customer satisfaction through delivery and process
- Quality of handover and succession planning outcomes
- Achieving growth by a brand profile built on a reputation of successful implementation and compliant operations
- Maintaining a position at the forefront of process, design and implementation
- Successful registration of required patents, inventions, IP and design

COMPETENCIES REQUIRED

The following competencies are required for this position:

Communication	Utilise high level communication skills to ensure Solo Water Operations are conducted in compliance with policies and procedures.
Team Work	Lead and encourage team work in order to build efficiencies and maximise operational output.
Problem Solving	Draw on previous knowledge and skills to solve problems as they arise, effectively and efficiently.
Self Management	Function effectively autonomously. Be proactive in your self-management to ensure deadlines are met.
Planning and Organisation	Plan, co-ordinate and direct work accordingly to ensure completion by deadlines and budget targets.
Technology	Utilise available technologies to complete tasks as required.
Learning	Identify gaps and take necessary steps to encourage learning in the workplace.
Initiative and enterprise	Use initiative and think outside the box; maintain high levels of innovation to ensure the Company remains at the forefront of the waste management industry.

PERSON SPECIFICATION

QUALIFICATIONS/ KNOWLEDGE/ EXPERIENCE

Qualifications – Essential:

- a) Engineering Degree
- b) Team Building / Management

Qualifications – Desirable:

- a) At the discretion of the General Manager

Knowledge, Skills & Experience (Essential):

- a) Minimum 10 years Operations Experience within the water industry
- b) Water and Wastewater Design, Development, Construction and Operations

Knowledge, Skills & Experience (Desirable):

- a) At the discretion of the General Manager

WORK HEALTH AND SAFETY

General

The Work Health and Safety Objectives form an essential part of this role and it is imperative that these Objectives are achieved. The achievement of these objectives will form part of the employees annual Staff Development Review.

- (a) Ensure employees care for their own health and safety and that of others.
- (b) Ensure Lockout Tags are used in accordance with work procedure IMS-SAFE-D-4806.
- (c) Work safely and maintain a safe workplace.
- (d) Ensure that you present as "Fit for Work" at all times.
- (e) Avoid taking risks.
- (f) Ensure that before starting a new job, that correct procedure is known.
- (g) Report and hazards immediately.
- (h) Submit own ideas towards safety.
- (i) Wear protective clothing where necessary or as indicated by signage.
- (j) Operate equipment in a safe manner.

QUALITY

- (a) To ensure that the dealing with customers and other company staff is supportive of the company's commitment to quality service.
- (b) Ensure that all work is of the highest standard, to minimize reliability of service to customers.
- (c) Ensure that the dealings with customers and other company employees are supportive of the Company's commitment to quality service.
- (d) Ensure familiarization with the company's Integrated Management System (IMS).
- (e) Perform all duties of the position in accordance with all policies and procedures of the Integrated Management System (IMS).
- (f) Maintain standards and controls to ensure design and quality output is maintained to legislative and other legally required standards.
- (g) Set work programs in order of priority, to maximise best practices and achieve the highest quality.
- (h) Foster a collaborative and cooperative approach in all decision making.
- (i) Lead company alignment through appropriate, clear and direct communication.
- (j) Deliver industry leading quality outcomes through a programme of continuous improvement that develops our operational capability.

ENVIRONMENT

- (a) Be environmentally aware and pro-active in the approach to environmental management.
- (b) Ensure that all spills are cleaned as per company procedure using environmentally sound methods.
- (c) Ensure all environmental incidents are reported to managers and reporting documentation completed.
- (d) Dispose of waste in an environmentally sound manner; recycling where appropriate.
- (e) Lead by example and encourage others to operate in an environmentally responsible manner.
- (f) Educate and ensure employees are following the correct environmental procedures, following legislative requirements and operating in an environmentally responsible manner.

ORGANISATIONAL RELATIONSHIPS / AUTHORITY

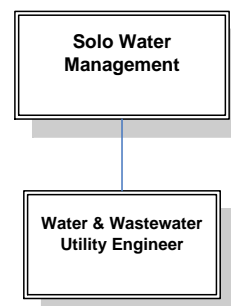
ORGANISATIONAL RELATIONSHIPS

Reports to: Solo Water Management

Manages: Project Operation and Maintenance Staff

Internal Contacts: Construction and Operational Teams
Design and Engineering Team
Sales, Marketing and Financial Teams

External Contacts: The Clients
Consultants through design, construction, commissioning and handover to Operations and Maintenance
Project Sub Contractors and Client Construction Managers
Solo Water Customers – e.g.: Ratepayers & Developers



ORGANISATIONAL AUTHORITY

Decisions made in the position: As advised throughout training.

Decisions Referred: As advised throughout training.

ACKNOWLEDGEMENT

This Position Description has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities and qualification required of employees assigned to the role.

POSITION IDENTIFICATION

Title	Site Manager – Solo Water
Functional Area	Solo Water
Reports to	Construction & Operations Manager

POSITION OBJECTIVE

A Site Manager is responsible and accountable for organising, constructing, operating and maintaining water & waste water plants & reticulation systems including potable water reticulation, recycled water reticulation and pressure sewer collection systems while establishing the Solo Water brand as an industry leader.

A Site Manager shall have the authority to carry out the duties required by this position description.

SPECIFIC RESPONSIBILITIES**Site Management**

- Regulation reporting and documentation to the required regulatory authority
- Monthly operation reporting and QA documentation
- Attending to Customer enquiries
- Operating and maintaining WWTP, AWTP, Ancillary systems and recycled water network at each development
- Ensure complete compliance with all Work Place Health & Safety requirements
- Maintain a clean safe compliant work environment at all times
- Continually review the security on any site and ensure there are adequate measures in place to eliminate any risk
- Ensure company budgets are met
- Report any abnormal variance or unbudgeted activity
- Report any increase in the company financial risk
- Report any threatened or pending litigation

People Management

- Present a pleasant professional attitude at all times
- Ensure role model behaviours are adhered to
- Ensure you adhere to legal and policy agreements (e.g.: Work Place, Health and Safety policies, harassment and discrimination laws)
- Follow company guidelines for any disciplinary or reward actions required

KEY PERFORMANCE OBJECTIVES

Outputs	Key Performance Indicator
As negotiated with Construction & Operations Manager	As determined by Construction & Operations Manager

COMPETENCIES REQUIRED

The following competencies are required for this position:

Communication	Utilise high level communication skills to ensure Solo Water Operations are conducted in compliance with policies and procedures.
Team Work	Lead and encourage team work in order to build efficiencies and maximise operational output.
Problem Solving	Draw on previous knowledge and skills to solve problems as they arise, effectively and efficiently.
Self Management	Function effectively autonomously. Be proactive in your self-management to ensure deadlines are met.
Planning and Organisation	Plan, co-ordinate and direct work accordingly to ensure completion by deadlines and budget targets.
Technology	Utilise available technologies to complete tasks as required.
Learning	Identify gaps and take necessary steps to encourage learning in the workplace.
Initiative and enterprise	Use initiative and think outside the box; maintain high levels of innovation to ensure the Company remains at the forefront of the waste management industry.

PERSON SPECIFICATION

QUALIFICATIONS/ KNOWLEDGE/ EXPERIENCE

Qualifications – Essential:

- a) At the discretion of the Construction & Operations Manager

Qualifications – Desirable:

- a) At the discretion of the Construction & Operations Manager
 b) Trade or technical qualifications applicable to the water industry.

Knowledge, Skills & Experience (Essential):

- a) Minimum of 10 years experience in the water industry in the construction, operation and maintenance of water infrastructure.
- b) Minimum 2 years experience in a similar site management role in the water industry
- c) At the discretion of the Construction & Operations Manager

Knowledge, Skills & Experience (Desirable):

- a) At the discretion of the Construction & Operations Manager

WORK HEALTH AND SAFETY

The Work Health and Safety Objectives form an essential part of this role and it is imperative that these Objectives are achieved. The achievement of these objectives will form part of the employees annual Staff Development Review.

- (a) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (b) Ensure that appropriate PPE is worn at all times.
- (c) Report any hazards in the workplace.
- (d) Set a good example to other staff and subcontractors on safe work behaviour standards.
- (e) Ensure employees and subcontractors care for their own health and safety and that of others.

QUALITY

- (a) Maintain standards and controls to ensure design and quality output is maintained to legislative and other legally required standards.
- (b) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (c) Ensure that the dealings with customers and other Company employees are supportive of the Company's commitment to quality service.

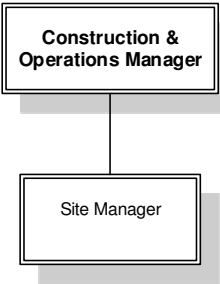
ENVIRONMENT

- (a) Lead by example and be environmentally aware and pro-active in the approach to environmental management.
- (b) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (c) Ensure that spills are cleaned using appropriate environmentally sound methods.
- (d) Dispose of waste in an environmentally sound manner; recycling where appropriate.

ORGANISATIONAL RELATIONSHIPS / AUTHORITY

ORGANISATIONAL RELATIONSHIPS

- Reports to: Construction & Operations Manager
- Manages: Subordinate staff and contractors
- Internal Contacts: Solo Water employees and management
- External Contacts: All clients / customers / suppliers / sub contractors



ACKNOWLEDGEMENT

This Position Description has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities and qualification required of employees assigned to the role.

POSITION IDENTIFICATION

Title	Site Supervisor – Solo Water
Functional Area	Solo Water
Reports to	Site Manager

POSITION OBJECTIVE

A Site Supervisor is responsible and accountable for organising, constructing, operating and maintaining water & waste water plants & reticulation systems including potable water reticulation, recycled water reticulation and pressure sewer collection systems while establishing the Solo Water brand as an industry leader.

A Site Supervisor shall have the authority to carry out the duties required by this position description.

SPECIFIC RESPONSIBILITIES

Site Management

- Regulation reporting and documentation to the required regulatory authority
- Monthly operation reporting and QA documentation
- Attending to Customer enquiries
- Operating and maintaining WWTP, AWTP, Ancillary systems and recycled water network at each development
- Ensure complete compliance with all Work Place Health & Safety requirements
- Maintain a clean safe compliant work environment at all times
- Continually review the security on any site and ensure there are adequate measures in place to eliminate any risk
- Ensure company budgets are met
- Report any abnormal variance or unbudgeted activity
- Report any increase in the company financial risk
- Report any threatened or pending litigation

People Management

- Present a pleasant professional attitude at all times
- Ensure role model behaviours are adhered to
- Ensure you adhere to legal and policy agreements (e.g.: Work Place, Health and Safety policies, harassment and discrimination laws)
- Follow company guidelines for any disciplinary or reward actions required

KEY PERFORMANCE OBJECTIVES

Outputs	Key Performance Indicator
As negotiated with Construction & Operations Manager	As determined by Construction & Operations Manager

COMPETENCIES REQUIRED

The following competencies are required for this position:

Communication	Utilise high level communication skills to ensure Solo Water Operations are conducted in compliance with policies and procedures.
Team Work	Lead and encourage team work in order to build efficiencies and maximise operational output.
Problem Solving	Draw on previous knowledge and skills to solve problems as they arise, effectively and efficiently.
Self Management	Function effectively autonomously. Be proactive in your self-management to ensure deadlines are met.
Planning and Organisation	Plan, co-ordinate and direct work accordingly to ensure completion by deadlines and budget targets.
Technology	Utilise available technologies to complete tasks as required.
Learning	Identify gaps and take necessary steps to encourage learning in the workplace.
Initiative and enterprise	Use initiative and think outside the box; maintain high levels of innovation to ensure the Company remains at the forefront of the waste management industry.

PERSON SPECIFICATION

QUALIFICATIONS/ KNOWLEDGE/ EXPERIENCE

Qualifications – Essential:

- a) At the discretion of the Construction & Operations Manager

Qualifications – Desirable:

- a) At the discretion of the Construction & Operations Manager
 b) Trade or technical qualifications applicable to the water industry.

Knowledge, Skills & Experience (Essential):

- a) Minimum of 5 years experience in the water industry in the construction, operation and maintenance of water infrastructure.
- b) Minimum 2 years experience in a similar Supervisory role in the water industry
- c) At the discretion of the Construction & Operations Manager

Knowledge, Skills & Experience (Desirable):

- a) At the discretion of the Construction & Operations Manager

WORK HEALTH AND SAFETY

The Work Health and Safety Objectives form an essential part of this role and it is imperative that these Objectives are achieved. The achievement of these objectives will form part of the employees annual Staff Development Review.

- (a) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (b) Ensure that appropriate PPE is worn at all times.
- (c) Report any hazards in the workplace.
- (d) Set a good example to other staff and subcontractors on safe work behaviour standards.
- (e) Ensure employees and subcontractors care for their own health and safety and that of others.

QUALITY

- (a) Maintain standards and controls to ensure design and quality output is maintained to legislative and other legally required standards.
- (b) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (c) Ensure that the dealings with customers and other Company employees are supportive of the Company's commitment to quality service.

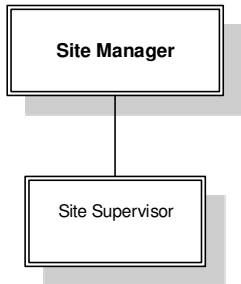
ENVIRONMENT

- (a) Lead by example and be environmentally aware and pro-active in the approach to environmental management.
- (b) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (c) Ensure that spills are cleaned using appropriate environmentally sound methods.
- (d) Dispose of waste in an environmentally sound manner; recycling where appropriate.

ORGANISATIONAL RELATIONSHIPS / AUTHORITY

ORGANISATIONAL RELATIONSHIPS

Reports to:	Site Manager
Manages:	Subordinate staff and Contractors
Internal Contacts:	Solo Water employees and management
External Contacts:	All clients / customers / suppliers / sub contractors



ACKNOWLEDGEMENT

This Position Description has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities and qualification required of employees assigned to the role.

POSITION IDENTIFICATION

Title	Water and Wastewater Systems Operator – Solo Water
Functional Area	Solo Water
Reports to	Construction & Operations Manager

POSITION OBJECTIVE

A Water and Wastewater Systems Operator is responsible and accountable for the operation and maintenance of Solo's water and wastewater infrastructure including wastewater and recycled water treatment plant, potable/recycled water reticulation and pressure sewer collection systems while establishing the Solo Water brand as an industry leader.

A Water and Wastewater Systems Operator shall have the authority to carry out the duties required by this position description.

SPECIFIC RESPONSIBILITIES**Site Management**

- Regulation reporting and documentation to the required regulatory authority;
- Monthly operation reporting and QA documentation;
- Attending to Customer enquiries;
- Operating and maintaining WWTP, AWTP, ancillary systems and potable/recycled water network at each development;
- Support the delivery of capital works projects including the construction, installation and commissioning of new infrastructure;
- Ensure complete compliance with all Work Place Health & Safety requirements;
- Maintain a clean safe compliant work environment at all times;
- Continually review the security on any site and ensure there are adequate measures in place to eliminate any risk;
- Ensure company budgets are met;
- Report any abnormal variance or unbudgeted activity;
- Report any increase in the company financial risk;
- Report any threatened or pending litigation;

People Management

- Present a pleasant professional attitude at all times;
- Ensure role model behaviours are adhered to;
- Effectively communicate, cooperate and work with team members to create a harmonious and productive workplace;

- Ensure you adhere to legal and policy agreements (e.g.: Work Place, Health and Safety policies, harassment and discrimination laws);
- Follow company guidelines for any disciplinary or reward actions required;

KEY PERFORMANCE OBJECTIVES

Outputs	Key Performance Indicator
As negotiated with Construction & Operations Manager	As determined by Construction & Operations Manager

COMPETENCIES REQUIRED

The following competencies are required for this position:

Communication	Utilise high level communication skills to ensure Solo Water Operations are conducted in compliance with policies and procedures.
Team Work	Lead and encourage team work in order to build efficiencies and maximise operational output.
Problem Solving	Draw on previous knowledge and skills to solve problems as they arise, effectively and efficiently.
Self Management	Function effectively autonomously. Be proactive in your self-management to ensure deadlines are met.
Planning and Organisation	Plan, co-ordinate and direct work accordingly to ensure completion by deadlines and budget targets.
Technology	Utilise available technologies to complete tasks as required.
Learning	Identify gaps and take necessary steps to encourage learning in the workplace.
Initiative and enterprise	Use initiative and think outside the box; maintain high levels of innovation to ensure the Company remains at the forefront of the waste management industry.

PERSON SPECIFICATION

QUALIFICATIONS/ KNOWLEDGE/ EXPERIENCE

Qualifications – Essential:

- At the discretion of the Construction & Operations Manager

Qualifications – Desirable:

- a) At the discretion of the Construction & Operations Manager
- b) Trade or technical qualifications applicable to the water industry

Knowledge, Skills & Experience (Essential):

- a) Minimum 5 years experience in the water industry with a focus on operation and maintenance of water and wastewater system.
- b) At the discretion of the Construction & Operations Manager

Knowledge, Skills & Experience (Desirable):

- a) At the discretion of the Construction & Operations Manager

WORK HEALTH AND SAFETY

The Work Health and Safety Objectives form an essential part of this role and it is imperative that these Objectives are achieved. The achievement of these objectives will form part of the employees annual Staff Development Review.

- (a) Ensure employees and subcontractors care for their own health and safety and that of others.
- (b) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (c) Ensure Lockout Tags are used in accordance with work procedure IMS-SAFE-D-4806.
- (d) Work safely and maintain a safe workplace.
- (e) Ensure that you present as "Fit for Work" at all times.
- (f) Avoid taking risks.
- (g) Ensure that before starting a new job, that correct procedure is known.
- (h) Report any hazards immediately.
- (i) Submit own ideas towards safety.
- (j) Wear protective clothing where necessary or as indicated by signage.
- (k) Operate equipment in a safe manner.
- (l) Ensure that appropriate PPE is worn at all times.
- (a) Set a good example to other staff and subcontractors on safe work behaviour standards.

QUALITY

- (a) Maintain standards and controls to ensure design and quality output is maintained to legislative and other legally required standards.
- (b) Ensure familiarisation with the Company's Integrated Management System (IMS).
- (c) Perform all duties of the position in accordance with all policies and procedures of

the Integrated Management System (IMS).

- (d) Ensure that the dealings with customers and other Company employees are supportive of the Company's commitment to quality service.
- (e) Ensure that all work is of the highest standard, to ensure reliability of service to customers.
- (f) Set work programs in order of priority, to maximise best practices and achieve the highest quality.
- (g) Foster a collaborative and cooperative approach in all decision making.
- (h) Deliver industry leading quality outcomes through a programme of continuous improvement that develops our operational capability.

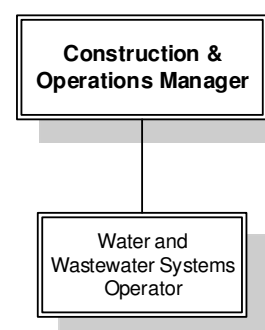
ENVIRONMENT

- (a) Lead by example and be environmentally aware and pro-active in the approach to environmental management.
- (b) Perform all duties of the position in accordance with all policies and procedures of the Integrated Management System (IMS), Environmental Management Plan (EMP) and associated procedures.
- (c) Ensure that spills are cleaned using appropriate environmentally sound methods.
- (d) Contribute to the appropriate resolution of significant incidents that are escalated internally.
- (e) Ensure that the correct environmental procedures and legislative requirements are followed and the system is operated in an environmentally responsible manner.
- (f) Dispose of waste in an environmentally sound manner; recycling where appropriate.

ORGANISATIONAL RELATIONSHIPS / AUTHORITY

ORGANISATIONAL RELATIONSHIPS

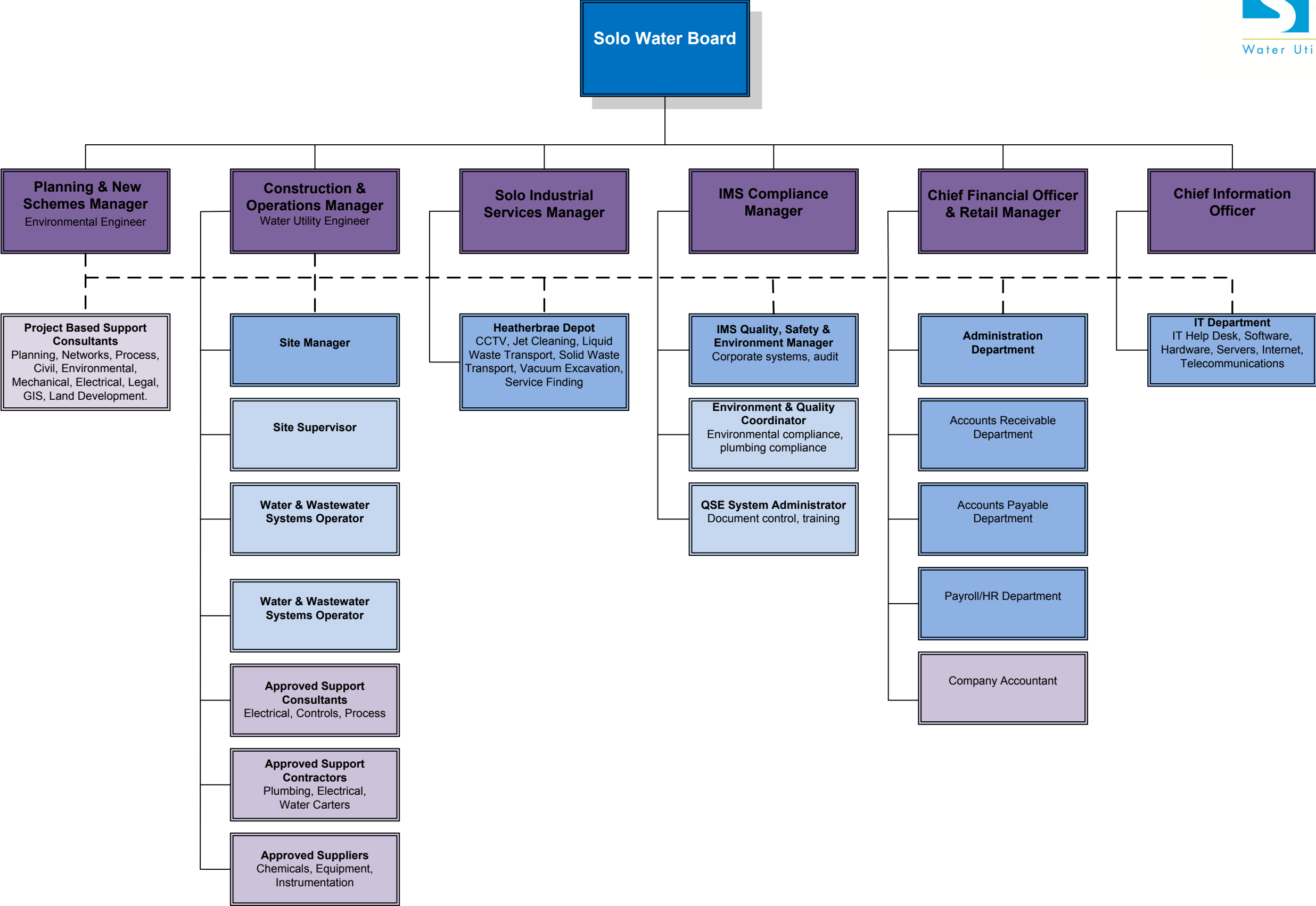
Reports to:	Construction & Operations Manager
Manages:	Subordinate staff and Contractors
Internal Contacts:	Solo Water employees and Management
External Contacts:	All clients / customers / suppliers / sub contractors



ACKNOWLEDGEMENT

This Position Description has been designed to indicate the general nature and level of work performed by employees within this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities and qualification required of employees assigned to the role.

Solo Water – Organisational Chart





Catherine Hill Bay Water Utility

Licence Plan Audit (Stage 2 Scheme)

#14071-10-001 Version 2.0

Independent Pricing and Regulatory Tribunal

March 2019

Document History

Catherine Hill Bay Water Utility

Licence Plan Audit
(Stage 2 Scheme)

Independent Pricing and Regulatory Tribunal

This document has been issued and amended as follows:

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1. Executive Summary

1.1 Auditor Declaration

This report presents the findings of a Licence Plan Audit of the compliance of Catherine Hill Bay Water Utility Pty Ltd's *Infrastructure Operating Plan*, *Drinking Water Quality Management Plan*, *Recycled Water Quality Management Plan* and *Sewage Management Plan* with the relevant provisions of the *Water Industry Competition Act 2006* and the *Water Industry Competition (General) Regulation 2008* as they relate to the drinking water, sewerage and recycled water schemes at Catherine Hill Bay.

The auditor confirms that:

- the auditor was provided with sufficient evidence on which to base the conclusions reached during the audit;
- the audit findings accurately reflect the professional opinion of the auditor;
- the auditor has conducted the audit, determined the audit findings and prepared this report in accordance with the requirements of the *WIC Act Audit Guidelines*¹ and the provisions of the Audit Deed; and
- the audit findings have not been unduly influenced by the Licensee and/or any of its associates and express the auditor's opinion as to whether the Licensee has met the Licence conditions and regulatory requirements as specified in the scope.

1.2 Major Findings

The Licensee, Catherine Hill Bay Water Utility Pty Ltd, was found to have documented the arrangements in relation to the design, construction, operation and maintenance of the proposed drinking water, sewerage and recycled water schemes in full compliance with the assessed audit criteria. No non-compliances were identified.

1.3 Recommendations

No recommendations have been made as a result of this audit.

Three (3) opportunities for improvement, which the Licensee may wish to consider, are identified in the body of the report.

1.4 Conclusion

In the opinion of the auditors, the Catherine Hill Bay Water management plans (*Infrastructure Operating Plan*, *Drinking Water Quality Management Plan*, *Recycled Water Quality Management Plan* and *Sewage Management Plan*) adequately document the arrangements in relation to the design, construction, operation and maintenance of the Stage 2 drinking water, sewerage and recycled (non-potable) water infrastructure to be operated under Network Operator's Licence No: 16_035. The documented arrangements are adequately compliant with the relevant guidelines, standards and legislative requirements.

¹ IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

2. Introduction

2.1 Objectives

This report presents the findings of a Licence Plan Audit undertaken for the Independent Pricing and Regulatory Tribunal (IPART) under the provisions of the *Water Industry Competition Act 2006*.

The objective of the audit was to assess compliance of the Licensee, Catherine Hill Bay Water Utility Pty Ltd's (Catherine Hill Bay Water or CHBWU) Licence Plans (*Infrastructure Operating Plan, Drinking Water Quality Management Plan, Recycled Water Quality Management Plan and Sewage Management Plan*) with the provisions of the relevant legislation (the *Water Industry Competition Act 2006* and *Water Industry Competition (General) Regulation 2008*) as they relate to the drinking water, sewerage and recycled water schemes at Catherine Hill Bay. These schemes will be operated pursuant to the conditions of Network Operator's Licence No: 16_035.

It is noted that a separately reported New Infrastructure Audit² was conducted in conjunction with this audit.

2.2 Licensee's Infrastructure, Systems and Procedures

The infrastructure, systems and procedures subject to audit are those related to the drinking water, sewerage and recycled water schemes (the Schemes) that will service "The Beaches" land and housing development at Catherine Hill Bay, approximately 20 kilometres south of Newcastle (refer <http://www.solowater.com.au/schemes/>). At the current stage of development, the Water Industry Infrastructure comprises:

- Stage 1 (which has previously been approved for commercial operation), including:³
 - a potable (drinking) water network that draws water from an existing bulk potable water supply, with an inline chlorine monitoring and dosing system;
 - a pressure sewer collection network, together with an interim pump out tank (for disposal of sewage by road tanker); and
 - a non-potable (recycled) water network, which has initially been charged with potable water via a cross connection from the potable water supply located downstream of the chlorine dosing point.
- Stage 2 (for which approval for commercial operation is now sought and is the subject of this audit), including:
 - a treatment plant for the production of recycled water from sewage;
 - facilities for the on-site storage of recycled water prior to distribution; and
 - on-site drinking water storage and chlorine dosing facility.

Once the Stage 2 infrastructure has been approved for commercial operation, the non-potable water network will be charged with recycled water. Surplus recycled water will be transported offsite until an irrigation system, which will be incorporated as part of Stages 6 and 7 of the land development, is commissioned. The proposed irrigation system will be subject to future audit and approval, and is not included in the scope of this audit.

² Cobbitty Consulting/Water Futures, *Catherine Hill Bay Water Utility; New Infrastructure Audit (Stage 2 Scheme)* (Version 2.0), November 2018.

³ Minister for Energy and Utilities, *Notice of approval to bring new infrastructure into commercial operation*, 27 October 2017.

Catherine Hill Bay Water Utility Pty Ltd (ACN 163 381 922) is the Licensee, holding Network Operator's Licence No: 16_035. As Licensee, Catherine Hill Bay Water will own and/or be responsible for the ongoing operation and maintenance of the drinking water network, sewerage network and the recycled water network (under the Stage 2 arrangements) in accordance with its Licence Plans including:

- Solo Water, *Catherine Hill Bay Water Utility; Infrastructure Operating Plan; Stage 2* (reference: IMS-OPER-B-8297-SW) (Revision 2.1), 5 November 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Drinking Water Quality Management Plan; Stage 2* (reference: IMS-ENVM-B-3727-SW) (Revision 2.0), 31 August 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Recycled Water Quality Management Plan; Stage 2* (reference: IMS-ENVM-B-3727-SW) (Revision 1.1), 5 November 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Sewage Management Plan; Stage 2* (reference: IMS-ENVM-B-3728-SW) (Revision 2.1), 5 November 2018; and
- other relevant supporting documentation.

It is noted that the *Infrastructure Operating Plan*, *Recycled Water Quality Management Plan* and *Sewage Management Plan* were updated during the audit process to remove reference to the use of recycled water for construction purposes. Whilst it is understood that this use was identified in the management plans submitted with Catherine Hill Bay Water's licence application, it was not reflected in the granted Licence.

2.3 Audit Method

2.3.1 Audit Scope

The audit comprised a Licence Plan Audit conducted pursuant to the *WIC Act Audit Guidelines*.⁴ The specific scope of the audit addressed identified requirements of the *Water Industry Competition (General) Regulation 2008* as they relate to the:

- *Infrastructure Operating Plan* (IOP);
- *Water Quality Plan (drinking water)* (WQP(dw));
- *Water Quality Plan (non-potable water)* (WQP(npw)) and
- *Sewage Management Plan* (SMP).

The audit covered all elements of the Stage 2 scheme arrangements as described in **Section 2.2**, including the Stage 1 (Interim Scheme) arrangements in respect of which the management plans have previously been assessed.⁵ It specifically excludes the proposed irrigation scheme and any associated infrastructure.

2.3.2 Audit Standard

The audit has been undertaken in accordance with the principles/guidance presented in:

- ISO 19011:2011 *Guidelines for auditing management systems*; and
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018 (WIC Act Audit Guidelines).

⁴ IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

⁵ Cobbitty Consulting/Water Futures, *Catherine Hill Bay Water Utility; Licence Plan Audit (Stage 1 – Interim Scheme)* (Version 2.0), 16 August 2017.

2.3.3 Audit Steps

The audit has been undertaken generally in accordance with the procedure outlined in the *WTC Act Audit Guidelines*.

Following approval of an *Audit Proposal* by IPART, an *Audit Agenda* and *Information Request* were sent to both the Licensee and IPART approximately one week prior to the audit fieldwork being undertaken. Audit fieldwork comprising a site inspection of existing infrastructure and a desktop audit of relevant documentation/records was undertaken on 18 October 2018. Some additional items of information and/or clarification were requested following the audit fieldwork and subsequently provided.

A draft audit report was prepared and submitted to both the Licensee and IPART on 25 November 2018 for review/comment before being finalised. Catherine Hill Bay Water advised that it had no comments in respect of the draft report; no comment has been received from IPART at the time of finalising the report.

The audit process involved seeking objective evidence that the Licensee had complied with the obligations identified for audit by IPART. Evidence was obtained through interview, review of relevant documentation and records, and site inspection.

2.3.4 Audit Team

The audit was conducted by Jim Sly and Dr Dan Deere, both of whom hold the required Lead Auditor accreditation on IPART's Technical Services and Water Licensing Panel. The two auditors collectively addressed the various components of the audit, as follows:

- Jim Sly – audit team lead and audit of the *Infrastructure Operating Plan* and *Sewage Management Plan* components; and
- Dan Deere – audit of the *Drinking Water Quality Plan* and *Recycled Water Quality Plan* components.





Quality assurance review of the audit reports was undertaken by each auditor reviewing the other auditor's work.

Catherine Hill Bay Water was represented by Rhys Richards (Director), Brad Irwin (Environmental Engineer/New Schemes Manager), Craig Heininger (Water Utility Engineer /Operations Manager), Ronnie Paine (Water and Wastewater Systems Operator) and Ross Pascoe (Site Supervisor). IPART representative Jessica Hanna attended as an observer during the audit fieldwork.

2.3.5 Audit Grades

Audit grades have been awarded in accordance with guidance presented in the *WTC Act Audit Guidelines*. The compliance grades applicable for the purposes of this audit were as identified in **Table 2.1**.

Table 2.1 Audit Compliance Grades

Compliance Grade	Description
 Compliant	Sufficient evidence is available to confirm that the requirements have been met.
 Non-compliant (non-material)	Sufficient evidence is not available to confirm that the requirements have been met and the deficiency does not adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 Non-compliant (material)	Sufficient evidence is not available to confirm that the requirements have been met and the deficiency does adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 No Requirement	There was no requirement for the Licensee to meet this criterion during the audit period.

2.4 Regulatory Regime

The Catherine Hill Bay Water schemes operate in accordance with the provisions of a Network Operator's Licence (Licence No: 16_035) issued under the *Water Industry Competition Act 2006* (NSW). Other relevant regulatory instruments and standards/guidelines include:

- *Water Industry Competition (General) Regulation 2008 (NSW)*;
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018;
- *Australian Drinking Water Guidelines 2011 (as amended 2016)*;
- *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006*;
- *Plumbing Code of Australia*;
- *Plumbing and Drainage Act 2011 (NSW)*; and
- NSW and national water industry and environmental regulations and codes of practice as applicable.

2.5 Quality Assurance Process

The quality of this audit report was assured through a professional review process. The report has been independently reviewed by a Lead Auditor who holds relevant accreditation on IPART's Technical Services and Water Licensing Panel.

2.6 Audit Findings

Audit findings are summarised in the following **Sections 3 to 6**, and are presented in full detail in **Appendices A to D**.

3. Infrastructure Operating Plan

3.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to the *Infrastructure Operating Plan*. Detailed assessment in respect of these clauses is presented in **Appendix A**.

3.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

3.3 Opportunities for Improvement

The following opportunity for improvement has been identified in respect of the audited *WTC Regulation* clauses related to the *Infrastructure Operating Plan*:

- **OFI-CHB2-LPA.01:** It is suggested that Catherine Hill Bay Water includes more specific details in respect of the continuity of sewerage services in the *Infrastructure Operating Plan* (similar to that provided in respect of the continuity of water supply).

4. Water Quality Plan (Drinking Water)

4.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to the *Water Quality Plan (Drinking Water)*. Detailed assessment in respect of these clauses is presented in **Appendix B**.

4.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

4.3 Opportunities for Improvement

The following opportunities for improvement have been identified in respect of the audited *WTC Regulation* clauses related to the *Water Quality Plan (Drinking Water)*:

- **OFI-CHB2-LPA.02:** It is suggested that Catherine Hill Bay Water considers including a summary of the drinking water CCP details in its *Drinking Water Quality Management Plan*, consistent with the requirements of NSW Health.
- **OFI-CHB2-LPA.03:** It is suggested that Catherine Hill Bay Water revises the identification of “Hazard(s) of Concern” in its CCP tables to distinguish between virus, bacteria and protozoa, thereby making it clear which barriers are effective for each pathogen.
[This OFI is also applicable in respect of recycled water.]

5. Water Quality Plan (Non-potable Water)

5.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to the *Water Quality Plan (Non-potable Water)*. Detailed assessment in respect of these clauses is presented in **Appendix C**.

5.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

5.3 Opportunities for Improvement

The following opportunity for improvement has been identified in respect of the audited *WTC Regulation* clauses related to the *Water Quality Plan (Non-potable Water)*:

- **OFI-CHB2-LPA.03:** It is suggested that Catherine Hill Bay Water revises the identification of “Hazard(s) of Concern” in its CCP tables to distinguish between virus, bacteria and protozoa, thereby making it clear which barriers are effective for each pathogen.
[This OFI is also applicable in respect of drinking water.]

6. Sewage Management Plan

6.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to the *Sewage Management Plan*. Detailed assessment in respect of these clauses is presented in **Appendix D**.

6.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

6.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited *WIC Regulation* clauses related to the *Sewage Management Plan*.



Catherine Hill Bay Water Utility

New Infrastructure Audit (Stage 2 Scheme)

#14071-10-002 Version 2.0

Independent Pricing and Regulatory Tribunal

November 2018

Document History

Catherine Hill Bay Water Utility

New Infrastructure Audit
(Stage 2 Scheme)

Independent Pricing and Regulatory Tribunal

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1. Executive Summary

1.1 Auditor Declaration

This report presents the findings of a New Infrastructure Audit of Catherine Hill Bay Water Utility Pty Ltd's compliance with the requirements of its Network Operator's Licence (Licence No: 16_035) and the relevant provisions of the *Water Industry Competition (General) Regulation 2008* as they relate to the drinking water, sewerage and recycled water schemes at Catherine Hill Bay.

The auditor confirms that:

- the auditor was provided with sufficient evidence on which to base the conclusions reached during the audit;
- the audit findings accurately reflect the professional opinion of the auditor;
- the auditor has conducted the audit, determined the audit findings and prepared this report in accordance with the requirements of the *WIC Act Audit Guidelines*¹ and the provisions of the Audit Deed; and
- the audit findings have not been unduly influenced by the Licensee and/or any of its associates and express the auditor's opinion as to whether the Licensee has met the Licence conditions and regulatory requirements as specified in the scope.

1.2 Major Findings

The Licensee, Catherine Hill Bay Water Utility Pty Ltd, was found to have designed and constructed and to be able to operate and maintain the audited drinking water, sewerage and recycled water schemes in compliance with the assessed audit criteria, with the exception of the following:

- **Network Operator's Licence clause B10.3** – although a Licensee's Code of Conduct (draft *Code of Conduct*) that addresses the requisite matters has been established, it has not yet been formally agreed in writing by the two parties notwithstanding a letter of intent from Central Coast Council to do so. At the time of reporting, the draft *Code of Conduct* remains in place and IPART has accepted a Voluntary Undertaking from Catherine Hill Bay Water in respect of this matter.

1.3 Recommendations

The following recommendation has been made as a result of this audit:

- **REC-CHB2-NIA.01:** It is recommended that Catherine Hill Bay Water takes action to ensure that it updates the draft *Code of Conduct* (as necessary) and agrees in writing a Licensee's Code of Conduct with Central Coast Council no later than 30 November 2019, as committed in the Voluntary Undertaking dated 8 October 2018 that has been accepted by IPART.

¹ IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

One (1) opportunity for improvement, which the Licensee may wish to consider, is identified in the body of the report.

1.4 Conclusion

Notwithstanding the identified non-compliance, in the opinion of the auditors the Licensee can commence commercial operation of the Stage 2 Scheme infrastructure² for the safe and reliable supply of drinking water and non-potable (recycled) water and the provision of sewerage services at Catherine Hill Bay.

The auditors support the approval of the commercial operation of these assets, which are to be operated under WICA Network Operator's Licence No: 16_035.

² Stage 2 Scheme infrastructure is as described in **Section 2.2**.

2. Introduction

2.1 Objectives

This report presents the findings of a New Infrastructure Audit undertaken for the Independent Pricing and Regulatory Tribunal (IPART) under the provisions of the *Water Industry Competition Act 2006*.

The objective of the audit was to assess compliance of the Licensee, Catherine Hill Bay Water Utility Pty Ltd (Catherine Hill Bay Water or CHBWU), in meeting the requirements of the relevant legislation (the *Water Industry Competition Act 2006* and *Water Industry Competition (General) Regulation 2008*) and its Network Operator's Licence (Licence No: 16_035) as they relate to the drinking water, sewerage and recycled water schemes at Catherine Hill Bay.

It is noted that a separately reported Licence Plan Audit³ was conducted in conjunction with this audit.

2.2 Licensee's Infrastructure, Systems and Procedures

The infrastructure, systems and procedures subject to audit are those related to the drinking water, sewerage and recycled water schemes (the Schemes) that will service "The Beaches" land and housing development at Catherine Hill Bay, approximately 20 kilometres south of Newcastle (refer <http://www.solowater.com.au/schemes/>). At the current stage of development, the Water Industry Infrastructure comprises:

- Stage 1 (which has previously been approved for commercial operation), including:⁴
 - a potable (drinking) water network that draws water from an existing bulk potable water supply, with an inline chlorine monitoring and dosing system;
 - a pressure sewer collection network, together with an interim pump out tank (for disposal of sewage by road tanker); and
 - a non-potable (recycled) water network, which has initially been charged with potable water via a cross connection from the potable water supply located downstream of the chlorine dosing point.
- Stage 2 (for which approval for commercial operation is now sought and is the subject of this audit), including:
 - a treatment plant for the production of recycled water from sewage;
 - facilities for the on-site storage of recycled water prior to distribution; and
 - on-site drinking water storage and chlorine dosing facility.

Once the Stage 2 infrastructure has been approved for commercial operation, the non-potable water network will be charged with recycled water. Surplus recycled water will be transported offsite until an irrigation system, which will be incorporated as part of Stages 6 and 7 of the land development, is commissioned. The proposed irrigation system will be subject to future audit and approval, and is not included in the scope of this audit.

³ Cobbitty Consulting/Water Futures, *Catherine Hill Bay Water Utility; Licence Plan Audit (Stage 2 Scheme)* (Version 2.0), November 2018.

⁴ Minister for Energy and Utilities, *Notice of approval to bring new infrastructure into commercial operation*, 27 October 2017.

Catherine Hill Bay Water Utility Pty Ltd (ACN 163 381 922) is the Licensee, holding Network Operator's Licence No: 16_035. As Licensee, Catherine Hill Bay Water will own and/or be responsible for the ongoing operation and maintenance of the drinking water network, sewerage network and the recycled water network (under the Stage 2 arrangements) in accordance with its Licence Plans including:

- Solo Water, *Catherine Hill Bay Water Utility; Infrastructure Operating Plan; Stage 2* (reference: IMS-OPER-B-8297-SW) (Revision 2.1), 5 November 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Drinking Water Quality Management Plan; Stage 2* (reference: IMS-ENVM-B-3727-SW) (Revision 2.0), 31 August 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Recycled Water Quality Management Plan; Stage 2* (reference: IMS-ENVM-B-3727-SW) (Revision 1.1), 5 November 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Sewage Management Plan; Stage 2* (reference: IMS-ENVM-B-3728-SW) (Revision 2.1), 5 November 2018; and
- other relevant supporting documentation.

It is noted that the *Infrastructure Operating Plan*, *Recycled Water Quality Management Plan* and *Sewage Management Plan* were updated during the audit process to remove reference to the use of recycled water for construction purposes. Whilst it is understood that this use was identified in the management plans submitted with Catherine Hill Bay Water's licence application, and is a use for which the supplied water would be suitable and safe, it was not reflected in the granted Licence.

2.3 Audit Method

2.3.1 Audit Scope

The audit comprised a New Infrastructure Audit conducted pursuant to the *WIC Act Audit Guidelines*.⁵ The specific scope of the audit addresses selected requirements of:

- the *Water Industry Competition (General) Regulation 2008*; and
- Network Operator's Licence No: 16_035;

in relation to the infrastructure that is proposed to be brought into commercial operation, which includes:

- a treatment plant for the production of recycled water from sewage;
- facilities for the on-site storage of recycled water prior to distribution; and
- on-site drinking water storage and chlorine dosing facility.

The audit scope specifically excludes the proposed irrigation scheme and associated infrastructure that are to be brought into commercial operation at a future date.

2.3.2 Audit Standard

The audit has been undertaken in accordance with the principles/guidance presented in:

- ISO 19011:2011 *Guidelines for auditing management systems*; and
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018 (WIC Act Audit Guidelines).

⁵ IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

2.3.3 Audit Steps

The audit has been undertaken generally in accordance with the procedure outlined in the *WTC Act Audit Guidelines*.

Following approval of an *Audit Proposal* by IPART, an *Audit Agenda* and *Information Request* were sent to both the Licensee and IPART approximately one week prior to the audit fieldwork being undertaken. Audit fieldwork comprising a site inspection of existing infrastructure and a desktop audit of relevant documentation/records was undertaken on 18 October 2018. Some additional items of information and/or clarification were requested following the audit fieldwork and subsequently provided.

A draft audit report was prepared and submitted to both the Licensee and IPART for review/comment before being finalised.

The audit process involved seeking objective evidence that the Licensee had complied with the obligations identified for audit by IPART. Evidence was obtained through interview, review of relevant documentation and records, and site inspection.

2.3.4 Audit Team

The audit was conducted by Jim Sly and Dr Dan Deere, both of whom hold the required Lead Auditor accreditation on IPART's Technical Services and Water Licensing Panel. The two auditors collectively addressed the various components of the audit.





Quality assurance review of the audit reports was undertaken by each auditor reviewing the other auditor's work.

Catherine Hill Bay Water was represented by Rhys Richards (Director), Brad Irwin (Environmental Engineer/New Schemes Manager), Craig Heininger (Water Utility Engineer /Operations Manager), Ronnie Paine (Water and Wastewater Systems Operator) and Ross Pascoe (Site Supervisor). IPART representative Jessica Hanna attended as an observer during the audit fieldwork.

2.3.5 Audit Grades

Audit grades have been awarded in accordance with guidance presented in the *WTC Act Audit Guidelines*. The compliance grades applicable for the purposes of this audit were as identified in **Table 2.1**.

Table 2.1 Audit Compliance Grades

Compliance Grade	Description
 Compliant	Sufficient evidence is available to confirm that the requirements have been met.
 Non-compliant (non-material)	Sufficient evidence is available to confirm that the requirements have been met and the deficiency does not adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 Non-compliant (material)	Sufficient evidence is available to confirm that the requirements have been met and the deficiency does adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 No Requirement	There was no requirement for the Licensee to meet this criterion during the audit period.

2.4 Regulatory Regime

The Catherine Hill Bay Water schemes operate in accordance with the provisions of a Network Operator's Licence (Licence No: 16_035) issued under the *Water Industry Competition Act 2006* (NSW). Other relevant regulatory instruments and standards/guidelines include:

- *Water Industry Competition (General) Regulation 2008* (NSW);
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018;
- *Australian Drinking Water Guidelines 2011 (as amended 2016)*;
- *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006*;
- *Plumbing Code of Australia*;
- *Plumbing and Drainage Act 2011* (NSW); and
- NSW and national water industry and environmental regulations and codes of practice as applicable.

2.5 Quality Assurance Process

The quality of this audit report was assured through a professional review process. The report has been independently reviewed by a Lead Auditor who holds relevant accreditation on IPART's Technical Services and Water Licensing Panel.

2.6 Audit Findings

Audit findings are summarised in the following **Section 3**, and are presented in full detail in **Appendix A**.

3. New Infrastructure

3.1 Summary of Findings

Under the provisions of *Water Industry Competition Act 2006*, the *Water Industry Competition (General) Regulation 2008* and the Network Operator's Licence, the Licensee is required to demonstrate the adequacy of any new infrastructure prior to it being introduced into service.

Catherine Hill Bay Water was found to be compliant with the audited clauses of the *Water Industry Competition (General) Regulation 2008* and the Network Operator's Licence as they apply to the Stage 2 Scheme drinking water, sewerage and recycled water infrastructure at Catherine Hill Bay, with the exception of the following:

- **Network Operator's Licence clause B10.3** – Non-compliant – Insignificant:
Although a Licensee's Code of Conduct has not yet been formally agreed, a draft *Code of Conduct* has been established and Central Coast Council has provided a letter indicating its intent to enter into the proposed *Code of Conduct* with Catherine Hill Bay Water (in relation to the supply of bulk potable water to the Catherine Hill Bay Water schemes). Review of the draft *Code of Conduct* available at the time of reporting reveals that it addresses the requisite matters, and there is no evidence that the terms of the proposed *Code of Conduct* have been contravened.

However, as the proposed *Code of Conduct* has not yet been formalised (agreed in writing by the two parties), Catherine Hill Bay Water has not demonstrated full compliance with this obligation. Given that the draft *Code of Conduct* remains in place and IPART has accepted a Voluntary Undertaking from Catherine Hill Bay Water in respect of this matter, the non-compliance is not considered to be material.

To achieve full compliance with clause B10, Catherine Hill Bay Water should ensure that it updates the draft *Code of Conduct* (as necessary) and agrees in writing a Licensee's Code of Conduct with Central Coast Council no later than 30 November 2019, as committed in the Voluntary Undertaking dated 8 October 2018 that has been accepted by IPART.

Detailed assessment in respect of this obligation is presented in **Table A.18** (refer **Appendix A**).

3.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

3.3 Opportunities for Improvement

One (1) opportunity for improvement has been identified in respect of the audited obligations, as follows:

- **OFI-CHB2-NIA.01:** It is suggested that Catherine Hill Bay Water reviews the SCADA system setup to ensure that the correct units are displayed on the AIT8011 UV Intensity setpoint screen.

Appendix A Detailed Audit Findings – New Infrastructure

Detailed audit findings are presented in this Appendix.



Catherine Hill Bay Water Utility

Operational Audit (Stage 1 – Interim Scheme)

#14080-10-001 Version 2.1

Independent Pricing and Regulatory Tribunal

April 2019

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Catherine Hill Bay Water Utility

Operational Audit
(Stage 1 – Interim Scheme)

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1. Executive Summary

1.1 Auditor Declaration

This report presents the findings of an Operational Audit of Catherine Hill Bay Water Utility Pty Ltd's compliance with the requirements of its Network Operator's Licence (Licence No: 16_035) and the relevant provisions of the *Water Industry Competition (General) Regulation 2008* as they relate to the drinking water, sewerage and recycled water schemes at Catherine Hill Bay.

The auditor confirms that:

- the auditor was provided with sufficient evidence on which to base the conclusions reached during the audit;
- the audit findings accurately reflect the professional opinion of the auditor;
- the auditor has conducted the audit, determined the audit findings and prepared this report in accordance with the requirements of the *WIC Act Audit Guidelines*¹ and the provisions of the Audit Deed; and
- the audit findings have not been unduly influenced by the Licensee and/or any of its associates and express the auditor's opinion as to whether the Licensee has met the Licence conditions and regulatory requirements as specified in the scope.

1.2 Major Findings

The Licensee, Catherine Hill Bay Water Utility Pty Ltd, was found to have designed, constructed operated and maintained the audited Stage 1 (Interim Scheme) drinking water, sewerage and recycled water schemes at Catherine Hill Bay in compliance with the assessed audit criteria, with the exception of the following:

- **Network Operator's Licence clause B10** – although a Licensee's Code of Conduct (draft *Code of Conduct*) that addresses the requisite matters has been established, it has not yet been formally agreed in writing by the two parties notwithstanding a letter of intent from Central Coast Council to do so. At the time of reporting, the draft *Code of Conduct* remains in place and IPART has accepted a Voluntary Undertaking from Catherine Hill Bay Water in respect of this matter.

1.3 Recommendations

The following recommendation has been made as a result of this audit:

- **REC-CHB1-2019.01:** It is recommended that Catherine Hill Bay Water takes action to ensure that it updates the draft *Code of Conduct* (as necessary) and agrees in writing a Licensee's Code of Conduct with Central Coast Council no later than 30 November 2019, as committed in the Voluntary Undertaking dated 8 October 2018 that has been accepted by IPART.

*(This recommendation is a restatement of recommendation **REC-CHB2-NIA.01** made in the Stage 2 Scheme New Infrastructure Audit Report).*

¹ IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

One (1) opportunity for improvement, which the Licensee may wish to consider, is identified in the body of the report.

2. Introduction

2.1 Objectives

This report presents the findings of an Operational Audit undertaken for the Independent Pricing and Regulatory Tribunal (IPART) under the provisions of the *Water Industry Competition Act 2006*.

The objective of the audit was to assess compliance of the Licensee, Catherine Hill Bay Water Utility Pty Ltd (Catherine Hill Bay Water or CHBWU), in meeting the requirements of the relevant legislation (the *Water Industry Competition Act 2006* and *Water Industry Competition (General) Regulation 2008*) and its Network Operator's Licence (Licence No: 16_035) as they relate to the Stage 1 (Interim Scheme) drinking water, sewerage and recycled water schemes at Catherine Hill Bay.

2.2 Licensee's Infrastructure, Systems and Procedures

The infrastructure, systems and procedures subject to audit are those related to the drinking water, sewerage and recycled water schemes (the Schemes) that service "The Beaches" land and housing development at Catherine Hill Bay, approximately 20 kilometres south of Newcastle (refer <http://www.solowater.com.au/schemes/>). The Water Industry Infrastructure comprises:

- Stage 1 (which was approved for and commenced commercial operation in October 2017),² including:
 - a potable (drinking) water network that draws water from an existing bulk potable water supply, with an inline chlorine monitoring and dosing system;
 - a pressure sewer collection network, together with an interim pump out tank (for disposal of sewage by road tanker); and
 - a non-potable (recycled) water network, which was initially charged with potable water via a cross connection from the potable water supply located downstream of the chlorine dosing point.
- Stage 2 (which was approved for and commenced commercial operation in December 2018),³ including:
 - a treatment plant for the production of recycled water from sewage;
 - facilities for the on-site storage of recycled water prior to distribution; and
 - on-site drinking water storage and chlorine dosing facility.

The Stage 1 (Interim Scheme) infrastructure was designed, constructed and brought into commercial operation within the audit period, and was subsequently operated and maintained during the remainder of the audit period. Accordingly, the Stage 1 phase of the development is the principal subject of this audit.

Design and construction of the Stage 2 Scheme infrastructure was commenced during, but was not completed until subsequent to the audit period; no operation or maintenance of the Stage 2 infrastructure was undertaken. Accordingly, only obligations related to design and construction of the Stage 2 phase of the development are the subject of this audit.

² Minister for Energy and Utilities, *Notice of approval to bring new infrastructure into commercial operation*, 27 October 2017.

³ Minister for Energy and Utilities, *Notice of approval to bring new infrastructure into commercial operation*, 13 December 2018 and Minister for Energy and Utilities, *Notice of approval to bring new infrastructure into commercial operation*, 18 January 2019.

It is noted that, until commercial operation of the Stage 2 Scheme infrastructure commenced (which was subsequent to the audit period), the non-potable (recycled) water network was charged with potable water. No recycled water was supplied to customers during the audit period.

Catherine Hill Bay Water Utility Pty Ltd (ACN 163 381 922) is the Licensee, holding Network Operator's Licence No: 16_035. As Licensee, Catherine Hill Bay Water owns and is responsible for the ongoing operation and maintenance of the drinking water network, sewerage network and the recycled water network in accordance with its management plans (Licence Plans).

Versions of the management plans in place during the audit period (i.e. in respect of the Stage 1 (Interim Scheme) infrastructure) included:

- Solo Water, *Infrastructure Operating Plan; Catherine Hill Bay Water Utility Interim Scheme* (reference: IMS-OPER-B-8297-SW) (Revision 1.0), 13 June 2017;
- Solo Water, *Drinking Water Quality Management Plan; Catherine Hill Bay Water Utility Interim Scheme* (reference: IMS-ENVM-B-3727-SW) (Revision 1.0), 13 June 2017; and
- Solo Water, *Sewage Management Plan; Catherine Hill Bay Water Utility Interim Scheme* (reference: IMS-ENVM-B-3728-SW) (Revision 1.0), 13 June 2017.

Versions of the management plans currently in place include:

- Solo Water, *Catherine Hill Bay Water Utility; Infrastructure Operating Plan; Stage 2* (reference: IMS-OPER-B-8297-SW) (Revision 2.1), 5 November 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Drinking Water Quality Management Plan; Stage 2* (reference: IMS-ENVM-B-3727-SW) (Revision 2.0), 31 August 2018;
- Solo Water, *Catherine Hill Bay Water Utility; Recycled Water Quality Management Plan; Stage 2* (reference: IMS-ENVM-B-3727-SW) (Revision 1.1), 5 November 2018; and
- Solo Water, *Catherine Hill Bay Water Utility; Sewage Management Plan; Stage 2* (reference: IMS-ENVM-B-3728-SW) (Revision 2.1), 5 November 2018.

2.3 Audit Method

2.3.1 Audit Scope

The audit comprised an Operational Audit conducted pursuant to the *WIC Act Audit Guidelines*.⁴ The specific scope of the audit was as defined in IPART's letter to Catherine Hill Bay Water (reference D18/22801) dated 4 September 2018; the nominated scope addresses selected requirements of:

- the *Water Industry Competition (General) Regulation 2008*; and
- Network Operator's Licence No: 16_035.

The subject of the audit was principally the Stage 1 (Interim Scheme) infrastructure, as described in **Section 2.2**; however, it also assesses activities associated with design and construction of the Stage 2 Scheme infrastructure to the extent applicable during the audit period.

⁴ IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

2.3.2 Audit Standard

The audit has been undertaken in accordance with the principles/guidance presented in:

- ISO 19011:2011 *Guidelines for auditing management systems*; and
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018 (WIC Act Audit Guidelines).

2.3.3 Audit Steps

The audit has been undertaken generally in accordance with the procedure outlined in the *WIC Act Audit Guidelines*.

Following approval of an *Audit Proposal* by IPART, an *Audit Agenda* and *Information Request* were sent to both the Licensee and IPART prior to the audit fieldwork being undertaken. Audit fieldwork comprising a site inspection of existing infrastructure and a desktop audit of relevant documentation/records was undertaken on 24 January 2019. Some additional items of information and/or clarification were requested following the audit fieldwork and subsequently provided.

A draft audit report was prepared and submitted to the Licensee for review/comment, before being finalised and issued to both the Licensee and IPART.

The audit process involved seeking objective evidence that the Licensee had complied with the obligations identified for audit by IPART. Evidence was obtained through interview, review of relevant documentation and records, and site inspection.

2.3.4 Audit Team





The audit was conducted by Jim Sly and a peer/quality assurance review was undertaken by Dr Dan Deere. Both auditors hold relevant Lead Auditor accreditation on IPART's Technical Services and Water Licensing Panel.

Catherine Hill Bay Water was represented by Brad Irwin (Environmental Engineer/New Schemes Manager), Craig Heininger (Water Utility Engineer /Operations Manager), Ronnie Paine (Water and Wastewater Systems Operator), Alan Irving (Site Manager) and Ross Pascoe (Site Supervisor). IPART representative Jamie Luke attended as an observer during the audit fieldwork.

2.3.5 Audit Grades

Audit grades have been awarded in accordance with guidance presented in the *WIC Act Audit Guidelines*. The compliance grades applicable for the purposes of this audit were as identified in **Table 2.1**.

Table 2.1 Audit Compliance Grades

Compliance Grade	Description
 Compliant	Sufficient evidence is available to confirm that the requirements have been met.
 Non-compliant (non-material)	Sufficient evidence is not available to confirm that the requirements have been met and the deficiency does not adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 Non-compliant (material)	Sufficient evidence is not available to confirm that the requirements have been met and the deficiency does adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 No Requirement	There was no requirement for the Licensee to meet this criterion during the audit period.

2.4 Regulatory Regime

The Catherine Hill Bay Water schemes operate in accordance with the provisions of a Network Operator's Licence (Licence No: 16_035) issued under the *Water Industry Competition Act 2006* (NSW). Other relevant regulatory instruments and standards/guidelines include:

- *Water Industry Competition (General) Regulation 2008 (NSW)*;
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018;
- *Australian Drinking Water Guidelines 2011 (as amended August 2018)*;
- *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006*;
- *Plumbing Code of Australia*;
- *Plumbing and Drainage Act 2011 (NSW)*; and
- NSW and national water industry and environmental regulations and codes of practice as applicable.

2.5 Quality Assurance Process

The quality of this audit report was assured through a professional review process. The report has been independently reviewed by a Lead Auditor who holds relevant accreditation on IPART's Technical Services and Water Licensing Panel.

2.6 Audit Findings

Audit findings are summarised in the following **Sections 3 to 8**, and are presented in full detail in **Appendices A to F**.

3. Water Supply Infrastructure

3.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to *Water Supply Infrastructure* (refer to **Appendix A** for detailed audit findings).

3.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

3.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited *WIC Regulation* clauses related to the *Water Supply Infrastructure*:

4. Non-Potable Water Supply Infrastructure

4.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to *Non-Potable Water Supply Infrastructure* (refer to **Appendix B** for detailed audit findings).

4.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

4.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited *WIC Regulation* clauses related to the *Non-Potable Water Supply Infrastructure*.

5. Sewerage Infrastructure

5.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to *Sewerage Infrastructure* (refer to **Appendix C** for detailed audit findings).

5.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

5.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited *WIC Regulation* clauses related to the *Sewerage Infrastructure*.

6. General Obligations of a Network Operator

6.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* that address the *General Obligations of a Network Operator* (refer to **Appendix D** for detailed audit findings).

6.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

6.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited *WIC Regulation* clauses that address the *General Obligations of a Network Operator*.

7. Schedule A to the Network Operator's Licence

7.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of *Schedule A to the Network Operator's Licence* (refer to **Appendix E** for detailed audit findings)

7.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

7.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited clauses of *Schedule A to the Network Operator's Licence*.

8. Schedule B to the Network Operator's Licence

8.1 Summary of Findings

Catherine Hill Bay Water was found not to be fully compliant with the audited clauses of *Schedule B to the Network Operator's Licence* (refer to **Appendix F** for detailed audit findings), as follows:

- **Network Operator's Licence clause B10** – Non-compliant – non-material:

As reported in respect of the Stage 2 Scheme New Infrastructure Audit, although a Licensee's Code of Conduct has not yet been formally agreed, a draft *Code of Conduct* has been established and Central Coast Council has provided a letter indicating its intent to enter into the proposed *Code of Conduct* with Catherine Hill Bay Water (in relation to the supply of bulk potable water to the Catherine Hill Bay Water schemes). Review of the draft *Code of Conduct* available at the time of reporting reveals that it addresses the requisite matters, and there is no evidence that the terms of the proposed *Code of Conduct* have been contravened.

However, as the proposed *Code of Conduct* has not yet been formalised (agreed in writing by the two parties), Catherine Hill Bay Water has not demonstrated full compliance with this obligation. Given that the draft *Code of Conduct* remains in place and IPART has accepted a Voluntary Undertaking from Catherine Hill Bay Water in respect of this matter, the non-compliance is not considered to be material.

To achieve full compliance with clause B10, Catherine Hill Bay Water should ensure that it updates the draft *Code of Conduct* (as necessary) and agrees in writing a Licensee's Code of Conduct with Central Coast Council no later than 30 November 2019, as committed in the Voluntary Undertaking dated 8 October 2018 that has been accepted by IPART.

Detailed assessment in respect of this obligation is presented in **Table F.6**.

8.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

8.3 Opportunities for Improvement

The following opportunity for improvement has been identified in respect of the audited clauses of *Schedule B to the Network Operator's Licence*.

- **OFI-CHB1-2019.01:** It is suggested that Catherine Hill Bay Water develops and implements a procedure to ensure that any changes in insurance arrangements are identified and specifically notified to IPART in accordance with the *Reporting Manual*.



Environmentally Certified

Certificate of Registration

Solo Water Pty Ltd

ABN: 11 160 013 614

86-88 Chinderah Bay Drive, CHINDERAH, NSW, 2487, Australia

operates an

Environmental Management System

which complies with the requirements of:

ISO 14001:2015

The registration covers the water utility services for the provision of the drinking water, sewerage and recycles water services.

Original Certification: 20 November 2018
Certification Decision/Reissue Date: 20 November 2018

Registration No: AU1373C-QC-EC
Expiry Date: 30 November 2020

Craig J Bates
President
TQCS International (Group) Pty Ltd

For the TQCSI Certification Approval Panel

Sean Bates
Accreditation Manager
TQCS International Pty Ltd

This certificate verifies the original certificate issued and is valid as long as it is displayed as an electronic copy at www.tqcsi.com and surveillance audits are satisfactorily completed. TQCS International Pty Ltd (ABN 59 065 953 924) of Quality House, 117A Tapleys Hill Road, Hendon, SA, 5014, Australia issues certification subject to the TQCSI Rules of Certification.



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www.iaf.nu



www.jas-anz.org/register



Quality Certified

Certificate of Registration

Solo Water Pty Ltd

ABN: 11 160 013 614

86-88 Chinderah Bay Drive, CHINDERAH, NSW, 2487, Australia

operates a

Quality Management System

which complies with the requirements of:

ISO 9001:2015

The registration covers the water utility services for the provision of the drinking water, sewerage and recycled water services.

Original Certification: 20 November 2018
Certification Decision/Reissue Date: 20 November 2018

Registration No: AU1373C-QC-EC
Expiry Date: 30 November 2020

Craig J Bates
President
TQCS International (Group) Pty Ltd

For the TQCSI Certification Approval Panel

Sean Bates
Accreditation Manager
TQCS International Pty Ltd

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[TQCS International Pty Ltd](http://www.tqcsi.com)



www.aacb.com.au



www.iaf.nu



www.jas-anz.org/register



Safety Certified

Certificate of Registration

Solo Resource Recovery

ABN:62 398 515 816

86-88 Chinderah Bay Drive, CHINDERAH, NSW, 2487, Australia

Additional Sites: Refer to Schedule

operates a

Safety Management System

which complies with the requirements of:

AS/NZS 4801:2001

The registration covers residential and commercial waste collection, handling and transportation, the transportation of hazardous and non-hazardous waste, including disposal of sewer waste, at all sites except Heatherbrae and WA Naval Base, which provide industrial services, including vacuum excavation, underground asset location, CCTV investigation, survey investigation, drain cleaning, high pressure blasting and bulk liquid waste transportation.

Original Certification: 7 November 2014
Certification Decision/Reissue Date: 21 November 2017

Registration No: AU1373A-QC-EC-SC-SC
Expiry Date: 30 November 2020

Craig J Bates
President
TQCS International (Group) Pty Ltd

For the TQCSI Certification Approval Panel

Lorraine Welsh
Accreditation Manager
TQCS International Pty Ltd

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www.jas-anz.org/register



Safety Certified

Certificate of Registration

Solo Resource Recovery

ABN:62 398 515 816

86-88 Chinderah Bay Drive, CHINDERAH, NSW, 2487, Australia

Additional Sites: Refer to Schedule

operates a

Safety Management System

which complies with the requirements of:

OHSAS 18001:2007

The registration covers residential and commercial waste collection, handling and transportation, the transportation of hazardous and non-hazardous waste, including disposal of sewer waste, at all sites except Heatherbrae and WA Naval Base, which provide industrial services, including vacuum excavation, underground asset location, CCTV investigation, survey investigation, drain cleaning, high pressure blasting and bulk liquid waste transportation.

Original Certification: 12 March 2013
Certification Decision/Reissue Date: 21 November 2017

Registration No: AU1373A-QC-EC-SC-SC
Expiry Date: 30 November 2020

Craig J Bates
President
TQCS International (Group) Pty Ltd

For the TQCSI Certification Approval Panel

Lorraine Welsh
Accreditation Manager
TQCS International Pty Ltd

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