

## Alliance for Water Stewardship

Site Level

---

### CONFIDENTIAL

<b>Client Name:</b>	Ingham's Enterprises Pty Ltd
<b>Audit date(s):</b>	1-3 December 2020
<b>Audit location:</b>	50 Goodman Place, Murarrie, QLD 4172 Australia
<b>Audit report completed by:</b>	Sam Ponder (Lead Auditor)
<b>Report issue date:</b>	This is the date that the report is issued to the client
<b>Proposed date of next audit:</b>	1 September 2021

### Introduction to the Alliance for Water Stewardship

The AWS Standard ("the Standard") is intended to drive water stewardship, which is defined as *the use of water that is socially equitable, environmentally sustainable and economically beneficial, achieved through a stakeholder-inclusive process that involves site- and catchment-based actions*. Good water stewards understand their own water use, catchment context and shared concerns in terms of water governance, water balance, water quality and Important Water-Related Areas, then engage in meaningful individual and collective actions that benefit people and nature.

The Standard outlines a series of actions, criteria and indicators for how one should manage water at the site level and how water management should be stewarded beyond the boundaries of a site. In this Standard, the "site" refers to the implementing entity that is responsible for fulfilling the criteria. The site includes the facility and the property over which the implementer that is using or managing water (i.e., withdrawing, consuming, diverting, managing, treating and/or discharging water or effluent into the environment) has control.

The current [AWS Standard is Version 2.0](#) launched on 22nd March 2019.

### Disclaimer

The BM TRADA audit was based on a sampling approach and therefore non conformities may exist which have not been identified.

A copy of this report shall be distributed to the certified client and to BM TRADA.

The ownership of this audit report is maintained by BM TRADA.

BM TRADA shall keep confidential all information relating to the audit and your organisation and shall not disclose such information to any third party except as required by law of by Accreditation Bodies.

BM TRADA assumes no responsibility (legal or otherwise) or accepts no liability to any person(s) for any loss, damage or expense caused by reliance on information provided in this audit report.

### Guidance on BM TRADA nonconformities issued against the AWS standard requirements

Details of all nonconformities issued at the audit are contained in separate nonconformity reports and should have been presented to you at the closing meeting.

Please send all nonconformity response to your local BM TRADA office. Once we have received

responses they will be forwarded to your auditor for review. We will contact you if further submission is required.

Audit finding shall be assigned (or 'graded') into one of three categories: major non-conformity, minor non-conformity, and observation.

### **Major Non-Conformities**

A major non-conformity is raised if:

- The issue represents a systematic problem of substantial consequence;
- The issue is a known and recurring problem that the client has failed to resolve;
- The issue fundamentally undermines the intent of the AWS Standard; or
- The nature of the problem may jeopardize the credibility of AWS.

All major non-conformities must satisfactorily address by the client within thirty **(30)** days.

### **Minor Non-Conformities**

Where the audit team has evaluated an audit finding and determines that the seriousness of the issue does not meet the any of the criteria for major non-compliance the audit team shall grade the finding as a minor non-conformity.

All minor non-conformities must satisfactorily address by the client within thirty **(90)** days unless an alternative timeframe, supported by written justification, has otherwise been agreed with the CAB.

2.9.3 For certificate holders, the CAB shall require that minor non-conformities are satisfactorily addressed within ninety **(90)** days

If corrective actions are inadequate to resolve a minor non-conformity by the time of the next scheduled audit, the CAB shall upgrade the audit finding to a major non-conformity.

**All other finding that are not major or minor non – conformities can be raised as observations.**

BM TRADA is unable to issue / reissue an AWS certificate of approval until all non-conformities are verified and closed.

**Failure to address and close nonconformities within required timescales will result in suspension of certification.**

Your auditor will clarify at the closing meeting if you require a follow up audit to verify correction and corrective action implementation or if documentary evidence will be acceptable to close the nonconformity.

Note: non-conformity will hereinafter be referred to as NCR.

## 1. Client and Certificate Details

### Client & Site Details

<b>Address of certified operation:</b>	50 Goodman Place, Murarrie, QLD 4172 Australia
<b>Management representative:</b>	Brett Porter
<b>Contact email address:</b>	bporter@inghams.com.au
<b>Contact phone number:</b>	0438 337 202
<b>Website address:</b>	www.inghams.com.au

### BM TRADA Certificate Details

<b>Type of certificate holder:</b>	Single Site		
<b>Certificate Number:</b>	2018-01	<b>Date of first certification:</b>	12/11/18
<b>Current Certificate start date:</b>	12/11/18	<b>Current Certificate expiry date:</b>	11/11/21
<b>Contact phone number:</b>	0438 337 202		
<b>Website address:</b>	www.bmtrada.com.au		

## 2. Details of Audit and Scope of Certification

### Audit Details

**Audit type:** Initial  Surveillance X  Scope Extension

**Audit team and roles:** Sam Ponder – Lead auditor

**Standard:** The AWS International Water Stewardship Standard Version V 2.0 (March 2019)

### Scope of Certification

**Scope of Certification:** Water Stewardship in the slaughter and processing of poultry

**Operations covered by scope of certification:** Ingham's Chickens - Murarrie site  
50 Goodman Place,  
Murarrie, QLD 4172  
Australia

**Other certification scheme(s) this company is certified for:** Halal  
Safe Food  
Free range

### Outsourcing:

Does the client outsource operations or activities within the scope to independent third parties? \* No

\*Activities of suppliers to the operation are not considered outsourcing.

### 3. Executive Summary

#### Main Items / Critical Control Points / Places Inspected

Main items / Critical Control Points / Places inspected (including names & affiliations of people consulted)	Number of NCRs
Commit	0
Gather and Understand	0
Plan	0
Implement	0
Evaluate	0
Communicate and disclose	0
<b>Total number of nonconformities issued at this audit:</b>	0

#### Previous NCR(s)

Were there any NCR(s) issued at the previous audit? Yes  No

#### Allocation of points and Lead Auditor Recommendations

103 points allocated – Recommend AWS Platinum Certified

**Note:** the above recommendation is subject to review and (continued) Certification / Recertification decision.

#### Allocation of Points

The audit team shall complete the allocation of points within thirty **(30)** days of completion of the on-site audit and, in any event, before finalizing the assessment report.

Where a client has one or more unresolved major nonconformity, the audit team shall not allocate points to any advanced-level indicators.

Prior to allocating points, the audit team shall review the assessment results to confirm that the client has met all core indicators.

Where one or more minor non-conformity has been raised against core indicators, the audit team should consider the adequacy of corrective action plans submitted by the client when applying.

Audit teams shall award points in accordance with the indicator-specific point allocation system given in the AWS Standard.

Certification level shall be determined based on the total sum of points awarded, in any combination, to all advanced-level indicators.

Thresholds for the three (3) AWS certification levels are given in Table 2.

**Table 2. Thresholds for AWS Certification Levels.**

<b>Point Total</b>	<b>AWS Certification Level</b>
0 to 39	AWS Core Certified
40 to 79	AWS Gold Certified
80 or greater	AWS Platinum Certified

## 4. Audit Observations, Findings and Conclusions

### Description of Operation and Catchment

#### Company History

The site was built 19 years ago – as a purpose built chicken processing site

#### Processes

Chickens only - processing 1.4m per week x 5 day week

#### Facilities

Poultry Primary Processing

#### Number of Employees

1300 FTE's

#### Other Information

The site is a former winner of the PM's Water Wise Award 2010 (Water Efficiencies and Excellence by commercial and industrial water users in Australia)

#### Catchment Narrative (from discussions with the catchment expert)

##### The site

The Murarrie site is located approximately 20km east of the City of Brisbane in the suburb of Murarrie. The north eastern aspect is defined by the Dobby Swamp and Bulimba creek. Directly south is the only direct neighbour which is currently a construction site owned by Goodman Fielder. The Plant occupies approximately 20% of the site with the remaining area being wetlands and pasture. In this area there are several redundant ponds and two constructed wetlands that treat stormwater from the site, otherwise no commercial activity occurs primarily due to the flood risks. The occupied area comprises of 2 large car parks, main processing building, truck wash, live bird holding area and, Advanced Water Treatment Plant (AWTP) including, a 22ML Anaerobic Pond, Sequencing Batch Reactor (SBR) and membrane plant.

The land area is owned by The Trust Company (Australia) Limited and managed through Charter Hall. Ingham's leases the operating area in the immediate fence line surrounding the building.

##### Site water

The Murarrie site's water supply is drawn from the municipal system and is in the South East Queensland water grid. Wastewater from the plant is treated on site in an Advanced Water Treatment Plant (AWTP) and recycled into a range of uses within the plant. Approximately two thirds of the site's water use comes from AWTP treated water.

Water storage, treatment and bulk supply for Brisbane is handled by SEQ Water, which sells on to Brisbane Water for distribution to the Greater Brisbane area. Water for the area is stored in three major dams; Wivenhoe Dam on the Brisbane River, Somerset on the Stanley River and North Pine on the North Pine River. Water is also provided by a number of smaller dams that are connected via the SEQ Water Grid. The Wivenhoe Dam is shared with the Gold Coast, which has two more water sources, the Hinze Dam and the smaller Little Nerang Dam, both on the Nerang River. Groundwater from North Stradbroke Island is also transferred to the mainland to supplement the area's water supply. Gold Coast Water has constructed a desalination plant at Tugun, commissioned in 2009. A Southern Regional Pipeline is also under construction that will share Gold Coast water with the rest of South East Queensland.

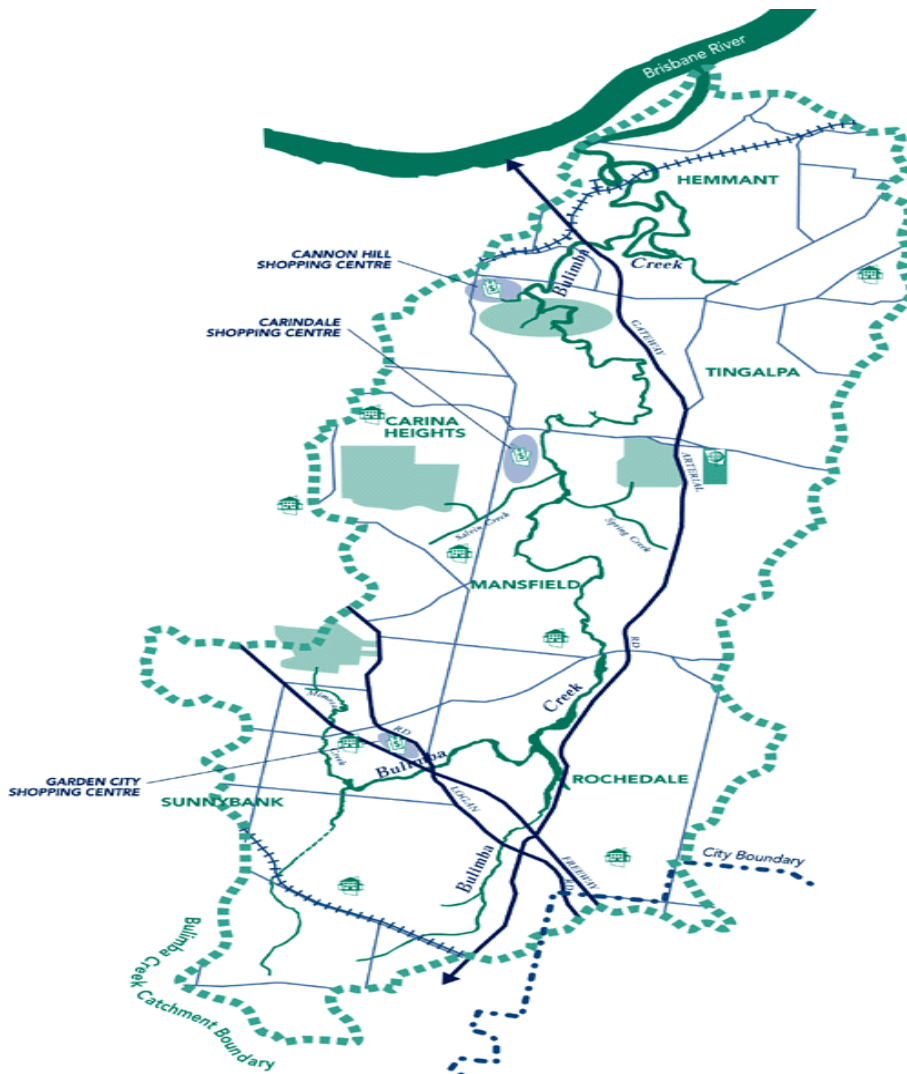
The catchment (Source <http://bulimbacreek.org.au/about/the-bulimba-creek-catchment>)

Bulimba Creek is located in the eastern and south-eastern areas of Brisbane and generally flows northwards into the Brisbane River. The catchment is impacted by urban development, tree clearing, damaging land uses and weeds. Brisbane hasn't been planned well; and infrastructure, services and inappropriate land use, including filling and building on flood plains and waterway corridors are problematic.

The Bulimba Creek catchment comprises a complex network of creeks and major tributaries, some of which are unnamed, occupying 122 square kilometres, or about 10% of Brisbane's area.

The catchment area extends from the southern suburbs of Kuraby and Runcorn, through Mt Gravatt, Mansfield, Carindale and Tingalpa to Hemmant and Murarrie in the north.

The catchment is ringed by significant remnant forest and has extensive areas along the creek corridor that can be restored. It contains 16 bushland remnants, seven freshwater swamplands and 10 significant riparian remnants. Bushland vegetation and wetlands make up about 10% of the catchment.





## STEP 1: GATHER AND UNDERSTAND

### *Gather data to understand shared water challenges and water risks, impacts and opportunities*

Intent: To ensure that the site gathers data on its water use and its catchment context and that the site uses these data to understand its shared water challenges as well as its contributions (both positive and negative) to these challenges, water risks, impacts, and opportunities. This information also informs the development of the site's water stewardship strategy and plan (Step 2) and guides the actions (Step 3) necessary to fulfil the site's commitments.

Criteria		Indicators	Response Area
<p>1.1 Gather information to define the site's physical scope for water stewardship purposes, including:</p> <ul style="list-style-type: none"> <li>its operational boundaries;</li> <li>the water sources from which the site draws;</li> <li>the locations to which the site returns its discharges;</li> <li>the catchment(s) that the site affect(s) and upon which it is reliant.</li> </ul>	<p>1.1.1</p>	<p>The physical scope of the site shall be mapped, considering the regulatory landscape and zone of stakeholder interests, including:</p> <p>Site boundaries; Water-related infrastructure, including piping network, owned or managed by the site or its parent organization; Any water sources providing water to the site that are owned or managed by the site or its parent organization; Water service provider (if applicable) and its ultimate water source; Discharge points and waste water service provider (if applicable) and ultimate receiving water body or bodies; Catchment(s) that the site affect(s) and is reliant upon for water.</p>	<p>Site maps exist in the Water Stewardship plan. The Trust Company of Australia owns the land and has a management company (Charter Hall) as landlord. Ingham's leases the site only so work on any peripheral areas are dependent on the Landlord's permission and cooperation. Amended from the Landlord – including surveillance and town planning maps (Lot and Lease area including easements) – documents dated 2/4/09</p> <p>Site infrastructure owned by Ingham's Corporate owned by TPG (ASX listed); all information related to the site is detailed above</p> <p>This section is detailed in 1.1 Physical scope of the Ingham's Enterprise Limited Water Stewardship Plan Murarrie Processing Plant September 2020 AWS Standard 2 (referred to as The Plan); with 1.1.1 detailing Site Boundaries; 1.1.2 Water Sources; 1.1.3 Site Discharges; (noted that there is a significant reduction 70% in trade waste volume and contaminants 1.1.4 Site Catchments</p>
<p>1.2 Understand relevant stakeholders, their water related challenges, and the site's ability to influence beyond its boundaries.</p>	<p>1.2.1</p>	<p>Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified.</p> <p>This process shall:</p> <p>Inclusively cover all relevant stakeholder groups including vulnerable, women, minority, and Indigenous people; Consider the physical scope identified, including stakeholders, representative of the site's ultimate water source and ultimate receiving water body or bodies; Provide evidence of stakeholder consultation on water-related interests and challenges; Note that the ability and/or willingness of stakeholders to participate may vary</p>	<p>Evidence reviewed in Table at 1.2.1</p> <p>Traditional Owners</p> <p>Minutes of meeting with TO's dated 17/11/18</p> <p>Briefing held with TO's by S Coghill</p> <p>Email of minutes noting minutes and attachments of attendees (14 TO's) 23/11/19</p> <p>B4C – Steve Hattingh</p> <p>QUU – Alyssa Sennema, Fiona Urwin (Trade Waste)</p> <p>Charter Hall – Management and Landlord for business</p> <p>Queensland University – Dr Tim Heulsen</p> <p>BioGene – Grant Smith</p>

		<p>across the relevant stakeholder groups; Identify the degree of stakeholder engagement based on their level of interest and influence.</p> <p>Government – Joan Pease is aware through other initiatives – no physical meeting to date</p> <p>Hosted visiting students from Stanford University and Hobart/William Creek College – provided presentation entitled Water Recycling on Water Stewardship project – opportunities/benefits</p>
	<p>1.2.2 Current and potential degree of influence between site and stakeholder shall be identified, within the catchment and considering the site’s ultimate water source and ultimate receiving water body for wastewater.</p>	<p>Evidence for 2020 Urban Utilities; Certificate of Appreciation B4C; Water in the Landscape Conference as Keynote speaker B4C As above for minutes of AGM dated 13/11/20 tabled</p>
<p>1.3 Gather water-related data for the site including:</p> <ul style="list-style-type: none"> <li>• water balance</li> <li>• water quality,</li> <li>• important Water Related Areas</li> <li>• water governance</li> <li>• WASH;</li> <li>• water-related costs, revenues, and shared value creation.</li> </ul>	<p>1.3.1 Existing water-related incident response plans shall be identified.</p>	<p>Noted in the Business Continuity Plan – lessons learnt from April 2018</p> <p>No incidents since then. If there was an issue it would be a breach of License with the Brisbane City Council which would result in improvement notice/fines/formal letters.</p> <p>There has been some issues with the Advanced Water Treatment Plant (AWPT) However these have been minor and fixed on-site.</p> <p>No changes during the past year.</p>
	<p>1.3.2 Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped.</p>	<p>Monitors – daily/weekly/monthly to management; Lab tests on quality, communicates with staff,</p> <p>Evidence Litres/Bird graph notes reduction to average 15 l/bird with major cost reductions of around \$70-80 K per week – dropping 30% in costs weekly Reported in ENVIZI weekly</p> <p>Notes what comes in from Potable water, what is recycled through AWPT and the volume discharged to Trade Waste – presented to the weekly Management Meeting. Minutes recorded and posted to ENVIZI</p>
	<p>1.3.3 Site water balance, inflows, losses, storage, and outflows, including indication of annual variance in water usage rates, shall be quantified. Where there is a water-related challenge that would be a threat to good water balance for people or environment, an indication of annual high and low variances shall be quantified.</p>	<p>30 year plan with SEQ Water - “On 24 March 2017, SEQ published version 2 of Our Water Security Program – 30-year plan for South East Queensland’s water security program’ – link below</p> <p><a href="https://www.seqwater.com.au/sites/default/files/2019-08/Water%20for%20life%20Water%20Security%20Program.pdf">https://www.seqwater.com.au/sites/default/files/2019-08/Water%20for%20life Water%20Security%20Program.pdf</a></p> <p>Evidence As noted above in the Table of Risks of the Shared Water Challenges</p>

		An additional 4 Megalitres is recycled weekly through the pond system which reduces reliance on potable water
1.3.4	Water quality of the site's water source(s), provided waters, effluent and receiving water bodies shall be quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be quantified.	<p>All information is captured in the following sources  Water in from QUU – monthly report on state of potable water (shared on the internet).  Evidence  Water Reporting Zone 1 Table  Additional information from SAS Laboratories weekly reports for anaerobic pond – notes Pond inflow/outflow  Sample: Table reviewed dated 17/11/20  Reviewed summary for week 16-20 th Nov 2020</p> <p>Minimal change to flows and BOD approx. 75% reduction  There are copies of emails forwarded to QUU advising Fiona Irwin – Trade Waste Supervisor (key stakeholder)  Reviewed ATOM internal water quality analysis – provided monthly for the site management (not for dissemination) Chlorine, Turbidity, Solids etc</p>
1.3.5	Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.	<p>Outlined as areas identified as per the Environmental Management Plan and reviewed as part of Emergency Evacuation Procedure.  Table - Water Risks and Opportunities 1.7.1 notes 1.3.5 AWS Criteria. Identifies Storm Water run-off as an opportunity.  All chemical is stored in the Chemical Storage Room – sighted during inspection of facility</p>
1.3.6	On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.	<p>Evidence  This is detailed in the Water Stewardship Plan September 2020 in Section 1.4.5 Site Important Water Related Areas  The site has never been identified as a cultural site. It was however a transit area for peoples to access the hunting and gathering areas.  The site map in 1.3.5 identifies areas to the North and East of the secure compound as important water related areas</p>
1.3.7	Annual water-related costs, revenues, and a description or quantification of the social, cultural, environmental, or economic water-related value generated by the site shall be identified and used to inform the evaluation of the plan in 4.1.2.	<p>Evidence  Water related cost comparison detailed in Section 1.4.6 between 2018-2019 and 2019-2020</p> <p>Project Proposal notes a potential saving of \$859K when fully implemented – recent data indicates there is a 70% reduction in Trade Waste through the Gibson Island facility.</p>

		<p>Also see Action 5 and Action 12 of Table 2.3 which is the updated Strategy and Plan</p> <p>The benefits are compliance to trade waste &amp; environment licence, burning free fuel from biogas and significant cost savings</p> <p>Social values gained with water flow into the fresh water swamp area are consistency of flow and maintaining ecosystem and for salt water swamp areas for fish and biodiversity wetlands</p>
	1.3.8	<p>Levels of access and adequacy of WASH at the site shall be identified.</p> <p>Amenities include potable drinking water which is supplied to the site for drinking, sanitation, hygiene (food safety). This is discharged straight to grey water sewage and trade waste. Bypasses the recycling system.</p> <p>All site water hydraulic P&amp;ID's are maintained on file</p>

1.4 Gather data on the site's indirect water use, including: its primary inputs; the water use embedded in the production of those primary inputs the status of the waters at the origin of the inputs (where they can be identified); and water used in out-sourced water-related services.	1.4.1	The embedded water use of primary inputs, including quantity, quality and level of water risk within the site's catchment, shall be identified.	All captured in Envizi – see screen shot in section 1.5
	1.4.2	The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.	All captured in Envizi – see screen shot in section 1.5
	1.4.3	<b>Advanced Indicator</b> The embedded water use of primary inputs in catchment(s) of origin shall be quantified.	All captured in Envizi – see screen shot in section 1.5  <b>7 Points</b>
1.5 Gather water-related data for the catchment, including: water governance, water balance, water quality, Important Water-Related	1.5.1	Water governance initiatives shall be identified, including catchment plan(s), water-related public policies, major publicly-led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action.	Reviewed as part of 1.3.1 <i>There is a list of relevant aspects of catchment plan(s), significant publicly led initiatives and/or relevant water related public policy goals. Ingham's are still developing more this information.</i>

Areas, infrastructure, and WASH			<i>E.g. plans from State government, Brisbane city, QLD Water.</i>
	1.5.2	Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights.	Reviewed as part of 1.3.2 in Table format
	1.5.3	The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.	Reviewed as part of 1.3.1 Gold Coast, Brisbane City Council and Sunshine Coast – noted as a Flow Diagram Managing Natural Assets for a Prosperous SE Qld 2014-2031 SE Water produces an annual report – see link at <a href="https://www.seqwater.com.au/results?query=annual+reports">https://www.seqwater.com.au/results?query=annual+reports</a>
	1.5.4	Water quality, including physical, chemical, and biological status, of the catchment shall be identified, and where possible, quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be identified	Detailed in 1.3.4 Catchment Water Quality with accompanying Table as example. Further information is at the following links;  <a href="https://urbanutilities.com.au/residential/help-and-advice/drinking-water-quality/water-quality-data">https://urbanutilities.com.au/residential/help-and-advice/drinking-water-quality/water-quality-data</a>  <a href="https://urbanutilities.com.au/business/business-services/water-quality-data">https://urbanutilities.com.au/business/business-services/water-quality-data</a>
	1.5.5	Important Water-Related Areas shall be identified, and where appropriate, mapped, and their status assessed including any threats to people or the natural environment, using scientific information and through stakeholder engagement.	Detailed in 1.3.5 Important Water Related Areas The Morton Bay RAMSAR site is identified in the Water Stewardship plan. The current status and future trends are publically documented eg <a href="https://wetlandinfo.ehp.qld.gov.au/wetlands/facts-maps/ramsar-wetland-moreton-bay/">https://wetlandinfo.ehp.qld.gov.au/wetlands/facts-maps/ramsar-wetland-moreton-bay/</a>
	1.5.6	Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.	Detailed in 1.3.6 Water Related Infrastructure Existing, publicly available reports or plans that assess water-related infrastructure are covered by a narrative in the water Stewardship plan. There is a map of all relevant assets e.g. pipelines.  <a href="https://www.seqwater.com.au/sites/default/files/PDF%20Documents/Publications/201306%20MajorAssetMap.pdf">https://www.seqwater.com.au/sites/default/files/PDF%20Documents/Publications/201306%20MajorAssetMap.pdf</a>  SEQ Water for Life 2016-2046 v2 March 2017 as detailed in 2.3.6 of the Water Stewardship Plan
	1.5.7	The adequacy of available WASH services within the catchment shall be identified.	Workers have access to safe water, effective sanitation and protective hygiene.  There are monthly checks on potable water coming on site.



		<p>There is monthly testing of facilities for TPC, E Coli, and Coliforms.</p> <p>Protective hygiene is provided and required and auditable under Food safety requirements.</p> <p>There is a maintenance schedule in MAXIMO (the maintenance management system) and PLUMBRight is the onsite contractor conducting maintenance. This is noted in the Water Stewardship Plan section 1.4.3 Site Water Quality. Checks are daily and weekly</p>
	<p>1.5.8 <b>Advanced Indicator</b> Efforts by the site to support and undertake catchment level water-related data collection shall be identified.</p>	<p>Works in collaboration with B4C Detailed in section 1.3.4 Catchment Map of Sampling Along Bullimba Creek and Table 2 Averaged Horiba Sampling Results for Baseline Flow and Flood Events – notes Murarrie and Doughboy Roads</p> <p>B4C Report – Water Quality of onsite ponds - August 2018 – commissioned water sampling, soil monitoring, fish survey of ponds at Murarrie site</p> <p>ANGFA survey - informal survey of existing storm and waste water handling points in January 2019</p> <p>Land for Wildlife (BCC) partnership agreement signed for improvement of flora and fauna within the adjoining boundary – first commercial member</p> <p>Reviewing sludge for waste reuse</p> <p>De-sludged the anaerobic lagoon reducing BOD</p> <p>Soil and water testing through GEMS</p> <p>Increased on-site water storage/capacity during the year</p> <p><b>6 points</b></p>
	<p>1.5.9 <b>Advanced Indicator</b> The adequacy of WASH provision within the catchments of origin of primary inputs shall be identified.</p>	<p>Workers have access to safe water, effective sanitation and protective hygiene.</p> <p>There are monthly checks on potable water coming on site.</p> <p>There is monthly testing of facilities for TPC, E Coli, and Coliforms.</p> <p>Protective hygiene is provided and required and auditable under Food safety requirements. This is all recorded in Envizi</p>

			<b>4 Points</b>
1.6 Understand current and future shared water challenges in the catchment, by linking the water challenges identified by stakeholders with the site's water challenges.	1.6.1	Shared water challenges shall be identified and prioritized from the information gathered.	Table at 1.6 Shared Water Challenges ranks 4 areas identified with QUU, TO's and Department of Environment and Sciences
	1.6.2	Initiatives to address shared water challenges shall be identified.	As above – notes Rationale to Priorities and further detailed in Tables 1.7.1 Water Risks and Opportunities 1.7.2 Opportunities
	1.6.3	<b>Advanced Indicator</b> Future water issues shall be identified, including anticipated impacts and trends	Covered Anaerobic Lagoon completed CAPEX project for diversion of waters for truck/crate washing facilities and treatments <b>3 Points</b>
	1.6.4	<b>Advanced Indicator</b> Potential water-related social impacts from the site shall be identified, resulting in a social impact assessment with a particular focus on water.	Data has been produced for collection of Nitrogen levels around river mouth into Morton Bay. B4C and Birdwatchers – see Table 1.7.2 Detailed in 1.9 Additional Water Related Data <b>3 Points</b>
1.7 Understand the site's water risks and opportunities: Assess and prioritize the water risks and opportunities affecting the site based upon the status of the site, existing risk management plans and/or the issues and future risk trends identified in 1.6	1.7.1	Water risks faced by the site shall be identified, and prioritized, including likelihood and severity of impact within a given timeframe, potential costs and business impact.	Detailed in 1.7.1 Water Risks Table Anaerobic ponds full of sludge Contaminated storm water to wetlands Restricted Town Water Supply Damage to IWRA Loss of town water
	1.7.2	Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.	Detailed in 1.7.2 Water Opportunities Table Notes 6 opportunities and includes costs and whether they are economic, social or environmental This has resulted in 2.3 of the Water Stewardship strategy where the plan which references the shared challenges and opportunities/risks and the outcomes. These are detailed in 12 Action points. There has been a 6 monthly review with most recent dated 11/11/20 with the results posted on the Ingham's internet page links  <a href="http://www.ingham.com.au/our-purpose/planet/">www.ingham.com.au/our-purpose/planet/</a>  <a href="https://ingham.com.au/wp-content/uploads/2020/11/Murarrrie-Nov-2020-WS-public-disclosure.pdf">https://ingham.com.au/wp-content/uploads/2020/11/Murarrrie-Nov-2020-WS-public-disclosure.pdf</a>

<p>1.8 Understand best practice towards achieving AWS outcomes:</p> <p>Determining sectoral best practices having a local/catchment, regional, or national relevance.</p>	1.8.1	Relevant catchment best practice for water governance shall be identified.	<p>Current holder of Gold Certificate for Water Stewardship dated 12/11/18</p> <p>Acknowledged by B4C Dec 2018 in the Industrial Partners Award and Certificate of Appreciation Nov 2020</p>
	1.8.2	Relevant sector and/or catchment best practice for water balance (either through water efficiency or less total water use) shall be identified.	<p>Significant reduction in water use per bird processed achieved as detailed in 'Meter readings for Advanced Water Treatment Plant' – November 2018 (22 Litres/bird) to September 2019 (average 15 Litres/bird). This is noted as performing better than the KPI rate set at (16-17.5 litres/bird) action 3 of Site Water Stewardship Plan</p> <p>The most recent KPI stipulates 16 ltrs per bird for October 2020</p>
	1.8.3	Relevant sector and/or catchment best practice for water quality shall be identified, including rationale for data source.	<p>Outgoing waste water trends are identified and documented. Ingham's is charged accordingly.</p> <p>Significant reduction in Trade Waste volume and BOD contaminants by approximately 70%</p>
	1.8.4	Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.	<p>Upgrading of all Ponds has been completed and planting of floating wetlands and wildlife access points along the banks is underway.</p> <p>Fish and aquatic life have been released into the system</p>
	1.8.5	Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.	<p>All potable as per section 1.5.7</p> <p>Workers have access to safe water, effective sanitation and protective hygiene.</p> <p>There are monthly checks on potable water coming on site.</p> <p>There is monthly testing of facilities for TPC, E Coli, and Coliforms.</p> <p>Protective hygiene is provided and required and auditable under Food safety requirements.</p> <p>There is a maintenance schedule in MAXIMO (the maintenance management system) and PLUMBRight together with Jasons Plumbing are engaged as onsite contractors conducting maintenance for eye wash stations and hand sanitiser station. CORE Water look after the Cooling Towers. This is noted in the Water Stewardship Plan section 1.4.3 Site Water Quality. Checks are daily and weekly</p>



**bmtrada**

Proud to be part of  element

## STEP 2: COMMIT AND PLAN

### *Commit to be a responsible water steward and develop a water stewardship plan*

Intent: To ensure there is sufficient leadership support, site authority, and allocated resources for the site to implement the AWS Standard. It focuses on how a site will act on shared water challenges and improve its performance and the status of its catchment in terms of the AWS water stewardship outcomes. Step 2 links the information gathered in Step 1 to the actions implemented in Step 3, by describing who will do what and when.

Criteria		Indicators	Response Area
2.1 Commit to water stewardship by having the senior-most manager in charge of water at the site, or if necessary, a suitable individual within the organization head office, sign and publicly disclose a commitment to water stewardship, the implementation of the AWS Standard and achieving its five outcomes, and the allocation of required resources.	2.1.1	<p>A signed and publicly disclosed site statement OR organizational document shall be identified.</p> <p>The statement or document shall include the following commitments:</p> <p>That the site will implement and disclose progress on water stewardship program(s) to achieve improvements in AWS water stewardship outcomes; That the site implementation will be aligned to and in support of existing catchment sustainability plans; That the site's stakeholders will be engaged in an open and transparent way ; That the site will allocate resources to implement the Standard.</p>	<p>Updated November 2020 signed by Plant Manager and Chief Executive Officer</p> <p>Noted under section 2.1 Leadership Commitment together with the Policy 2.1.1</p> <p>Also noted to be on the following link:</p> <p><a href="https://ingham.com.au/wp-content/uploads/2020/11/Murarie-Nov-2020-WS-public-disclosure.pdf">https://ingham.com.au/wp-content/uploads/2020/11/Murarie-Nov-2020-WS-public-disclosure.pdf</a></p> <p><a href="https://investors.ingham.com.au/FormBuilder/Resource/module/eeODKPCYSUCaXLPDAXx-9A/file/ING-FY20-Annual-Report.pdf">https://investors.ingham.com.au/FormBuilder/Resource/module/eeODKPCYSUCaXLPDAXx-9A/file/ING-FY20-Annual-Report.pdf</a></p> <p>Note pages 15,16 &amp; 17</p>
	2.1.2	<p><b>Advanced Indicator</b></p> <p>A statement that explicitly covers all requirements set out in Indicator 2.1.1 and is signed by the organization's senior-most executive or governance body and publicly disclosed shall be identified.</p>	<p>Updated November 2020 signed by Plant Manager and Chief Executive Officer – copy sighted at the front Gatehouse to Murarie site</p> <p>Noted under section 2.1 Leadership Commitment together with the Policy 2.1.1</p> <p><b>1 Point</b></p>
2.2 Develop and document a process to achieve and maintain legal and regulatory compliance.	2.2.1	<p>The system to maintain compliance obligations for water and wastewater management shall be identified, including: Identification of responsible persons/positions within facility organizational structure; Process for submissions to regulatory agencies.</p>	<p>1.3.2 Water Related Legal and Regulatory Requirements</p> <p>Organisation chart displays responsibilities – Water-Related Internal Governance</p> <p>2.2 Responsibility is outlined in the Table</p>
2.3 Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment	2.3.1	<p>A water stewardship strategy shall be identified that defines the overarching mission, vision, and goals of the organization towards good water stewardship in line with this AWS Standard.</p>	<p>This is outlined in Table situated at 2.3 Water Stewardship Strategy and Plan and 2.4 Demonstrate the Sites responsiveness and resilience to respond to water risks</p>

water challenges, and opportunities.	2.3.2	<p>A water stewardship plan shall be identified, including for each target:</p> <p>How it will be measured and monitored; Actions to achieve and maintain (or exceed) it; Planned timeframes to achieve it; Financial budgets allocated for actions; Positions of persons responsible for actions and achieving targets; Where available, note the link between each target and the achievement of best practice to help address shared water challenges and the AWS outcomes.</p>	<p>Table as above for 2.3 Water Stewardship Strategy and Plan Table details all requirements – Objective, Smart Target, Action, Cost/Benefit, Shared Opportunities, Relevant criteria, Responsible person, Accountability, Start &amp; End dates</p>
	2.3.3	<p><b>Advanced Indicator</b> The site’s partnership/water stewardship activities with other sites within the same catchment (which may or may not be under the same organisational ownership) shall be identified and described.</p>	<p>Partnership Agreement with B4C signed 9 Aug 2018 and Fellowship agreement with QU dated 20/7/18</p> <p>Land for Wildlife Agreement (improvement for healthy land and water) dated 14/12/18</p> <p>Project with UQ for Protein Rich Feed Production from Agri-industrial waste water by phototrophic bacteria dated 30/8/19 – (resulting in 0 trade waste i.e. N)</p> <p>Meeting with QUU to brief CEO Luncheon on Water Stewardship challenges</p> <p>QUU, B4C, University, TAFE groups presentations on AWS advantages and achievements to date held during the year.</p> <p>Held seminar on Water &amp; Landscape</p> <p><b>4 Points</b></p>
	2.3.4	<p><b>Advanced Indicator</b> The site’s partnership/water stewardship activities with other sites in another catchment(s) (either under same corporate structure or with another corporate site) shall be identified.</p>	<p>Somerville Ingham’s key plant personnel visited Murarrie site (16/8/19) and shared information in best practice for AWTP Reverse Osmosis – email communication with Andrew Perry Capital Projects Manager Somerville.</p> <p>Murarrie provided assistance to Ingham’s Bolivar plant in SA., who has since achieved AWS certification.</p> <p>Murarrie assisting Sommerville with their sludge management</p> <p>Project earmarked (held up by COVID since April 2020) for Shane Clouston to assist Sommerville with their waste water treatment plant and identify beneficial re-use of water over the site to govern environmental flows and sustainable water use.</p> <p>Email notification dated 8/12/20 to Andrew Perry on the Murarrie RO project and how Sommerville could benefit</p>

			<b>4 points</b>
	2.3.5	<p><b>Advanced Indicator</b> Stakeholder consensus shall be sought on the site's water stewardship plan. Consensus should be achieved on at least one target. A list of targets that have consensus and in which stakeholders are involved shall be identified.</p>	<p>Stakeholder engagement is set out in Table 1.2.1 Stakeholder List and Ability to Influence Target is to recycle 4 megs a week through the onsite pond system. Table 2.3 sets out the Water Stewardship Strategy and Plan in Shared Challenges</p> <p>Traditional Owners – Steve Coghill (release of feeder fish/aquatic species into ponds (Action 9)</p> <p>B4C – Steve Hattingh – completed ponds 3-8 (Action 4, 6 &amp; 10)</p> <p>QUU – Alyssa Sennema – RO trade waste significantly reduced to zero (Action 10) and reduction in purchase of potable water (Action 3) by reducing water / bird use; (Action 1) – reducing BOD impact of trade waste by desludging anaerobic pond</p> <p>Charter Hall – Management and Landlord for business</p> <p>Queensland University – Dr Tim Hulsen – reached 3347 Kg/qtr (Action 5)</p> <p>Brisbane City Council – Land for Wildlife - completed ponds 3-8; and release of water into BCC wetlands (inspected during audit) (Action 4, 6 &amp; 10)</p> <p>BioGene – Grant Smith</p> <p>State Government – Joan Pease (Local member) is aware through other initiatives – no physical meeting to date</p> <p><b>5 points</b></p>
2.4 Demonstrate the site's responsiveness and resilience to respond to water risks	2.4.1	<p>A plan to mitigate or adapt to identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.</p>	<p>Water scarcity to the fresh water wetlands and the saltwater marshes – Ingham's is working with BCC to ensure that sufficient water is available. This is outlined in Land for Wildlife Agreement (improvement for healthy land and water) dated 14/12/18 – key contact is Fleur Collier</p> <p>Key document numbers noted as: Council Lot Number 5 SP225214 Property Number 00310050-4 15111 for 26.13 Ha Land for Wildlife membership numbers – 6698 and 8049 (the only commercial members in Queensland)</p>

	<p>2.4.2 <b>Advanced Indicator</b>          A plan to mitigate or adapt to water risks associated with climate change projections developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.</p>	<p>Identified in points 1-4 of Table 2.3 Water Stewardship Strategy and Plan; the following link in the Annual Report is;  <a href="https://investors.ingham.com.au/FormBuilder/Resource/module/eeODKPcYSUCaXLPDAXx-9A/file/ING-FY20-Annual-Report.pdf">https://investors.ingham.com.au/FormBuilder/Resource/module/eeODKPcYSUCaXLPDAXx-9A/file/ING-FY20-Annual-Report.pdf</a></p> <p>Noted in page 14 &amp; 15</p> <p>Tables 1.7.1 Water Risks 1.7.2 Water Opportunities details flood levels, returning water to the wetlands and increasing environmental flow to the creek lands, returning water to groundwater, developing water security mechanisms, reducing reliance on potable water resources – all in collaboration with BCC and QUU</p> <p>Plan is in place and is being executed</p> <p><b>5 points</b></p>
--	---	---

### STEP 3: IMPLEMENT

#### *Implement the site's stewardship plan and improve impacts*

Intent: To ensure that the site is implementing the plan outlined in Step 2, mitigating risks and driving actual improvements in performance.

Criteria		Indicators	Response Area
3.1 Implement plan to participate positively in catchment governance.	3.1.1	Evidence that the site has supported good catchment governance shall be identified.	Detailed in 3.1.1 site meetings with QUU and the discussions on improving trade waste to the Gibson Island AWTP
	3.1.2	Measures identified to respect the water rights of others including Indigenous peoples, that are not part of 3.2 shall be implemented.	Engagement has occurred with TO however there are no relevant water rights in respect to the Ingham's site
	3.1.3	<b>Advanced Indicator</b> Evidence of improvements in water governance capacity from a site-selected baseline date shall be identified.	First review dated 1/3/19 with follow up November 2020. Results of Summary of Water Stewardship Plan Progress and Effort to Address Shared Water Challenges showed % completed and actions of the plant. Significant improvement in water efficiencies shown. Feedback on recent plantings along the pond edges from B4C Stefan Hattingh provided by email dated 13/11/20  <b>2 points</b>
	3.1.4	<b>Advanced Indicator</b> Evidence from a representative range of stakeholders showing consensus that the site is seen as positively contributing to the good water governance of the catchment shall be identified.	As per Stakeholder feedback Stefan Hattingh - email dated 13/11/20  Heather Barns - email dated 19/11/20 positive feedback from B4C wildlife  Judith Hoyle - email dated 5/11/20 positive feedback on multiple bird species/populations at the ponds (survey undertaken) Entry noted on <a href="http://www.birddata.birdlife.org.au/survey?id=3411548&amp;h=3d2d7e75">www.birddata.birdlife.org.au/survey?id=3411548&amp;h=3d2d7e75</a>  Wayne Cameron - email dated 3/12/20 from B4C provided positive feedback on Water stewardship initiatives and the recent presentation made by Ingham's commenting that 'it was highly newsworthy'.  <b>2 points</b>
3.2 Implement system to comply with water-related legal and	3.2.1	A process to verify full legal and regulatory compliance shall be implemented.	Detailed in 2.2 of the Water Stewardship Plan 2020 Outlined in Annual returns to Department Environment Services (DES) – reviewed NPI report and annual returns and reports to QUU for Trade Waste

regulatory requirements and respect water rights.	3.2.2	Where water rights are part of legal and regulatory requirements, measures identified to respect the water rights of others including Indigenous peoples, shall be implemented.	Detailed in 3.3 Implement plan to achieve Site Water Balance Targets Reviewed 6 monthly Actions Report made to B4C dated 13/11/20 at their AGM. This is on the Ingham's internet at the following link; <a href="https://ingham.com.au/wp-content/uploads/2020/11/Murarrie-Nov-2020-WS-public-disclosure.pdf">https://ingham.com.au/wp-content/uploads/2020/11/Murarrie-Nov-2020-WS-public-disclosure.pdf</a>
3.3 Implement plan to achieve site water balance targets.	3.3.1	Status of progress towards meeting water balance targets set in the water stewardship plan shall be identified.	Detailed in 3.3 Implement plan to achieve Site Water Balance Targets Carried over the sites EMP on Table 1.1 and captured in the weekly COO data report for water and monthly KPI Planet Report
	3.3.2	Where water scarcity is a shared water challenge, annual targets to improve the site's water use efficiency, or if practical and applicable, reduce volumetric total use shall be implemented.	Detailed in 3.3 Water consumption is lodged in the sites EMP. These are reviewed weekly at the site Management Meetings.  Monthly water consumption meetings are held with management.  Evidence Reviewed Plant Performance Weekly Management Report dated 16-20 th Nov 2020 – all records maintained on file. Business Quarterly review to Supervisors and Team Leaders – have not been reviewed due to COVID restrictions
	3.3.3	Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.	Not relevant – no legally binding re-allocation
	3.3.4	<b>Advanced Indicator</b> The total volume of water voluntarily re-allocated (from site water savings) for social, cultural and environmental needs shall be quantified.	This has been identified as 4 megalitres per week to replenish the ponds. Measured by solar powered water metre – sighted during inspection of facility. Data shows that an average of 3.981Mg/L per week is entering ponding system  <b>4 points</b>
3.4 Implement plan to achieve site water quality targets.	3.4.1	Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.	First review dated 1/3/19 with consequent in late 2019 with further follow up November 2020. Results of Summary of Water Stewardship Plan Progress and Effort to Address Shared Water Challenges showed % completed and actions of the plant. Significant improvement in water efficiencies shown.
	3.4.2	Where water quality is a shared water challenge, continual improvement to achieve best practice for the site's effluent shall be	As above – detailed in Trade Waste Discharge report



		identified and where applicable, quantified.	
3.5 Implement plan to maintain or improve the site's and/or catchment's Important Water-Related Areas.	3.5.1	Practices set in the water stewardship plan to maintain and/or enhance the site's Important Water-Related Areas shall be implemented.	The Water Stewardship Plan outlines the enhancements to the site ponds systems and the riparian zone along the creek
	3.5.2	<b>Advanced Indicator</b> Evidence of completed restoration of non-functioning or severely degraded Important Water-Related Areas including where appropriate cultural values from a site-selected baseline date shall be identified. Restored areas may be outside of the site, but within the catchment.	Improvements to the BCC controlled Doboy Wetlands; recognised by B4C Chairman (Wayne Cameron) as a protected habitat. Pond 7 storm water release point – with an average of 3 MgL per week being released into the creek system. Separately a bird survey identified 45 different species now living in the area. Reduction of N, Ph and BOD load into the Morton Bay RAMSAR site is recognised by QUU. Data supports the Zero target release from Ingham's into the Gibson Island Trade Waste Processing facility. Detailed in the annual Trade Waste Report from QUU.  <b>4 points</b>
	3.5.3	<b>Advanced Indicator</b> Evidence from a representative range of stakeholders showing consensus that the site is seen as positively contributing to the healthy status of Important Water-Related Areas in the catchment shall be identified.	Detailed in the Stakeholder consultation. See 3.1.4 & 3.2.2 for evidence  <b>2 points</b>
3.6 Implement plan to provide access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers at all premises under the site's control.	3.6.1	Evidence of the site's provision of adequate access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers onsite shall be identified and where applicable, quantified.	All incoming WASH water is potable as per section 1.5.7 Workers have access to safe water, effective sanitation and protective hygiene.  There are monthly checks on potable water coming on site.  There is monthly testing of facilities for TPC, E Coli, and Coliforms.  Protective hygiene is provided and required and auditable under Food safety requirements.  As per 1.8.5 - There is a maintenance schedule in MAXIMO (the maintenance management system) and PLUMBRight together with Jasons Plumbing are engaged as onsite contractors conducting maintenance for eye wash stations and hand sanitiser station. CORE Water look after the Cooling Towers. This is noted in the Water Stewardship Plan section 1.4.3 Site Water Quality. Checks are daily and weekly  Also noted in 3.6 of the Plan was the planning for a manual bypass for the hygiene system – inspected placement of valves to re-direct water from AWTP flush water to ponds



			and also option to redirect water from Pond 6 into the amenities flush system.
	3.6.2	Evidence that the site is not impinging on the human right to safe water and sanitation of communities through their operations, and that traditional access rights for Indigenous and local communities are being respected, and that remedial actions are in place where this is not the case, and that these are effective.	The site is under the ownership and management of Charter Hall. It is however maintained by Ingham's who fill the legal and regulatory requirements
	3.6.3	<b>Advanced Indicator</b> A list of actions taken to support the provision to stakeholders in the catchment of access to safe drinking water, adequate sanitation and hygiene awareness shall be identified.	<b>Not relevant</b>
	3.6.4	<b>Advanced Indicator</b> In catchments where WASH has been identified as a shared water challenge, evidence of efforts taken with relevant public-sector agencies to share information and to advocate for change to address access to safe drinking water and sanitation shall be identified.	<b>Not relevant</b>
3.7 Implement plan to maintain or improve indirect water use within the catchment.	3.7.1	Evidence that indirect water use targets set in the water stewardship plan, as applicable, have been met shall be quantified.	Evidence is available that supplier growers report usage into ENVIZI
	3.7.2	Evidence of engagement with suppliers and service providers, as well as, when applicable, actions they have taken in the catchment as a result of the site's engagement related to indirect water use, shall be identified.	QUU – is the supplier of potable water; multiple meetings with minutes of attendance and email correspondence with Alyssa Sennema – Commercial Account Manager Environmental & Industrial

	3.7.3	<b>Advanced Indicator</b> Actions taken to address water related risks and challenges related to indirect water use outside the catchment shall be documented and evaluated.	<b>Not relevant</b>
3.8 Implement plan to engage with and notify the owners of any shared water-related infrastructure of any concerns the site may have.	3.8.1	Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified.	<b>Not relevant</b> All incoming shared infrastructure is owned by SEQ Water and managed with (piping) maintained by QUU
3.9 Implement actions to achieve best practice towards AWS outcomes: continually improve towards achieving sectoral best practice having a local/catchment, regional, or national relevance.	3.9.1	Actions towards achieving best practice, related to water governance, as applicable, shall be implemented.	Achieving best practice, related to water governance is detailed in 2.3 Create a water Stewardship strategy and plan
	3.9.2	Actions towards achieving best practice, related to targets in terms of water balance shall be implemented.	Achieving best practice, related to targets in terms of water balance is per 2.3 Create a water Stewardship strategy and plan
	3.9.3	Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.	Achieving best practice, related to targets in terms of water quality is per 2.3 Create a water Stewardship strategy and plan
	3.9.4	Actions towards achieving best practice, related to targets in terms of the site's maintenance of Important Water-Related Areas shall be implemented.	Achieving best practice, related to targets in terms of the site's maintenance of Important Water-Related Areas is waiting on Capital approval to proceed. Inspected ponding. The Hydraulic Water Design produced by Civil and Water details all Ingham's intentions
	3.9.5	Actions towards achieving best practice related to targets in terms of WASH shall be implemented.	<b>Not relevant</b> – all potable water provided is from QUU
	3.9.6	<b>Advanced Indicator</b> Achievement of identified best practice related to targets in terms of good	Achievement of identified best practice related to targets in terms of good water governance is detailed in the Annual Return to DES on environmental licence requirements NPI – National Pollutant Inventory Report NGERS Report – Green-house gases

	water governance shall be quantified.	Ingham's website – Annual Report  <b>6 points</b>
3.9.7	<b>Advanced Indicator</b> Achievement of identified best practice related to targets in terms of sustainable water balance shall be quantified.	<b>Not relevant</b>
3.9.8	<b>Advanced Indicator</b> Achievement of identified best practices related to targets in terms of water quality shall be quantified.	Evidence of identified best practices related to targets in terms of water quality are detailed in the: Water Reporting Zone 1 Table Additional information from SAS Laboratories weekly reports for anaerobic pond – notes Pond inflow/outflow  Sample: Table reviewed dated 11/11/20 Significant change to flows and BOD shows an approx. 70% reduction There is a copy of the email forwarded to QUU David Nile – Trade waste Supervisor (key stakeholder)  Reviewed AWTP/ATOM internal water quality analysis reporting – provided monthly for the site management (not for dissemination) Chlorine, Turbidity, Solids etc Reviewed summary for week 25/11/20  <b>8 points</b>
3.9.9	<b>Advanced Indicator</b> Achievement of identified best practices related to targets in terms of the site's maintenance of Important Water-Related Areas have been implemented.	Photo evidence provided by B4C at their seminar in March 2020 where Ingham's Murarrie were awarded a gold star for best practise – seminar organised by Brisbane Catchment Group for Water in Landscape. A list of commercial and residential attendees to the seminar is available.  <b>6 Points</b>
3.9.10	<b>Advanced Indicator</b> Achievement of identified best practice related to targets in terms of WASH shall be quantified.	<b>Not relevant</b>
3.9.11	<b>Advanced Indicator</b> A list of efforts to spread best practices shall be identified.	Ongoing communications with QUU – presented to the QUU Board on AWS and how it can benefit them and their customers AGM B4C – 80 people from commercial and environmental interests Liaised with Ingham's Somerville Vic and Bolivar SA  <b>3 points</b>
3.9.12	<b>Advanced Indicator</b> A list of collective action efforts, including the organizations involved, positions of responsible	Collective action efforts, include Ingham's Somerville Vic and Bolivar SA This is clearly outlined in 2.3 of the Plan under Metrics.

	<p>persons of other entities involved, and a description of the role played by the site shall be identified.</p>	<p>This is reported 6 monthly and available on the Ingham's website. The report was used in the presentation to the B4C group at their November AGM</p> <p><b>10 points</b></p>
<p>3.9.13</p>	<p><b>Advanced Indicator</b>          Evidence of the quantified improvement that has resulted from the collective action relative to a site-selected baseline date shall be identified and evidence from an appropriate range of stakeholders linked to the collective action (including both those implementing the action and those affected by the action) that the site is materially and positively contributing to the achievement of the collective action shall be identified.</p>	<p>See above.          Reviewed the Internal Table of sites x key performance indicators. These are maintained and reported weekly to senior management</p> <p><b>6 points</b></p>

## STEP 4: EVALUATE

### Evaluate the site's performance

Intent: To review a site's performance against the actions taken in Step 3, learn from the results – both intended and unintended – and inform the next iteration of the site's water stewardship plan. This evaluation shall occur at least annually, but sites should consider more frequent evaluations.

Criteria		Indicators	Response Area
4.1 Evaluate the site's performance in light of its actions and targets from its water stewardship plan and demonstrate its contribution to achieving water stewardship outcomes.	4.1.1	Performance against targets in the site's water stewardship plan and the contribution to achieving water stewardship outcomes shall be evaluated.	Performance against targets in the site's water stewardship plan and the contribution to achieving water stewardship outcomes are detailed in the biennial February and November Review – see link for the progress report
	4.1.2	Value creation resulting from the water stewardship plan shall be evaluated.	Value creation resulting from the water stewardship plan is noted in 1.3.7
	4.1.3	The shared value benefits in the catchment shall be identified and where applicable, quantified.	The shared value benefits in the catchment are identified in the B4C Catchment Management Plan – outlined in the Partnership Agreement under Roles for Ingham's and B4C
	4.1.4	<b>Advanced Indicator</b> A governance or executive-level review, including discussion of shared water challenges, water risks, and opportunities, and any water-related cost savings or benefits realized, and any relevant incidents shall be identified.	Value creation resulting from the water stewardship plan is noted in 1.3.7  All information from ENVIZI is collated by the Group Sustainability Manager for Board consideration  <b>2 points</b>
4.2 Evaluate the impacts of water-related emergency incidents (including extreme events), if any occurred, and determine the effectiveness of corrective and preventative measures.	4.2.1	A written annual review and (where appropriate) root-cause analysis of the year's emergency incident(s) shall be prepared and the site's response to the incident(s) shall be evaluated and proposed preventative and corrective actions and mitigations against future incidents shall be identified.	There has been no water related issues in the past 12 months. However there is evidence of the previous issues from 2017-2018 highlighted in the 2018 report
4.3 Evaluate stakeholders' consultation feedback regarding the site's water stewardship performance,	4.3.1	Consultation efforts with stakeholders on the site's water stewardship performance shall be identified.	Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies are detailed in 5.2.1 Ongoing meetings are held with QUU. These cover reductions in Trade Waste quality and quantity. The BCC – Land for Wildlife, B4C, an update on project progress from Dr Tim

including the effectiveness of the site's engagement process.			<p>Heulsen from UQ detailed in email dated 27/6/20; reports are prepared and sent to DES are for the Annual Return for maintaining the Environmental Licence and Annual Ingham's Board Report. Information is available via the website at the following link;  <a href="https://ingham.com.au/wp-content/uploads/2020/12/Murarie-Nov-2020-WS-public-disclosure.pdf">https://ingham.com.au/wp-content/uploads/2020/12/Murarie-Nov-2020-WS-public-disclosure.pdf</a></p>
	4.3.2	<p><b>Advanced Indicator</b>            The site's efforts to address shared water challenges shall be evaluated by stakeholders. This shall include stakeholder reviewing of the site's efforts across all five outcome areas, and their suggestions for continual improvement.</p>	<p>Table 2.3 sets out the Water Stewardship Strategy and Plan in Shared Challenges. The link below has been used to present to the B4C AGM;  <a href="https://ingham.com.au/wp-content/uploads/2020/12/Murarie-Nov-2020-WS-public-disclosure.pdf">https://ingham.com.au/wp-content/uploads/2020/12/Murarie-Nov-2020-WS-public-disclosure.pdf</a></p> <p>Traditional Owners – Steve Coghill (release of feeder fish/aquatic species into ponds (Action 9)            B4C – Steve Hattingh – completed ponds 3-8 (Action 4, 6 &amp; 10)            QUU – Alyssa Sennema – RO trade waste significantly reduced to zero (Action 10) and reduction in purchase of potable water (Action 3) by reducing water / bird use; (Action 1) – reducing BOD impact of trade waste by desludging anaerobic pond            Charter Hall – Management and Landlord for business            Queensland University – Dr Tim Hulsen – reached 3347 Kg/qtr (Action 5)            Brisbane City Council – Land for Wildlife - completed ponds 3-8; and release of water into BCC wetlands (inspected during audit) (Action 4, 6 &amp; 10)  <b>4 points</b></p>

4.4 Evaluate and update the site's water stewardship plan, incorporating the information	4.4.1	The site's water stewardship plan shall be modified and adapted to incorporate any relevant information and lessons learned from the evaluations in this step and these changes shall be identified.	<p>The site's water stewardship plan has been modified and adapted to incorporate any relevant information and lessons learned.            Evidence</p>
--	-------	--	---

<p>obtained from the evaluation process in the context of continual improvement.</p>			<p>Evaluation of the actions in the Feb and Nov reviews have led to changes in the Plan. Primarily this has been updating of the Plan to meet the AWS Standard Version 2.0 criteria.          Examples include: Commitment 2.1.2, 2.1.3 and 2.1.4          The site HSE Manager creating awareness of Water Stewardship at various industry events and across the site.          Presentation/site inspection to Department of Environment and Sciences on Ingham's waste water management systems – email dated 23/11/20 from Sasha Hindmarsh Senior Environmental Officer advising compliance with the Environmental License regulations.</p>
--	--	--	---



## STEP 5: COMMUNICATE & DISCLOSE

### *Communicate about water stewardship and disclose the site's stewardship efforts*

Intent: To encourage transparency and accountability through communication of performance relative to commitments, policies, and plans. The disclosure of relevant information allows others to make informed opinions on a site's operations and tailor their involvement to suit.

Criteria		Indicators	Response Area
5.1 Disclose water-related internal governance of the site's management, including the positions of those accountable for legal compliance with water-related local laws and regulations.	5.1.1	The site's water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations shall be disclosed.	Evidence Murarrie Operational Plant Structure outlines all of the positions. Legal requirements are in 1.3.2 of the Plan Also included on the company internet site under Water Related Internal Governance at the following link; <a href="https://ingham.com.au/wp-content/uploads/2020/12/Murarrie-Nov-2020-WS-public-disclosure.pdf">https://ingham.com.au/wp-content/uploads/2020/12/Murarrie-Nov-2020-WS-public-disclosure.pdf</a>
5.2 Communicate the water stewardship plan with relevant stakeholders.	5.2.1	The water stewardship plan, including how the water stewardship plan contributes to AWS Standard outcomes, shall be communicated to relevant stakeholders.	Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies are detailed in 5.2.1 Ongoing meetings are held with QUU. These cover reductions in Trade Waste quality quantity. The BCC – Land for Wildlife, B4C, an update on project progress from Dr Tim from UQ detailed in email dated 27/6/20; reports are prepared and sent to DES are for Annual Return for maintaining the Environmental Licence and Annual Ingham's Board
5.3 Disclose annual site water stewardship summary, including the relevant information about the site's annual water stewardship	5.3.1	A summary of the site's water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum.	A summary of the site's water stewardship performance is detailed on the company website at the following link: <a href="https://ingham.com.au/wp-content/uploads/2020/12/Murarrie-Nov-2020-WS-public-disclosure.pdf">https://ingham.com.au/wp-content/uploads/2020/12/Murarrie-Nov-2020-WS-public-disclosure.pdf</a>  Document is entitled the 'Summary of Water Stewardship Plan Progress and Effort to Shared Water Challenges – Ingham's Murarrie 2018-19'



performance and results against the site's targets.	5.3.2	<b>Advanced Indicator</b> The site's efforts to implement the AWS Standard shall be disclosed in the organization's annual report.	The site's efforts to implement the AWS Standard is detailed in the following link; <a href="https://investors.inghams.com.au/FormBuilder/_Resource/_module/eeODKPcYSUCa&gt;9A/file/ING-FY20-Annual-Report.pdf">https://investors.inghams.com.au/FormBuilder/_Resource/_module/eeODKPcYSUCa&gt;9A/file/ING-FY20-Annual-Report.pdf</a> Note pages 15,16 & 17  <b>1 point</b>
	5.3.3	<b>Advanced Indicator</b> Benefits to the site and stakeholders from implementation of the AWS Standard shall be quantified in the organization's annual report.	The site's efforts to implement the AWS Standard is detailed in the following link; <a href="https://investors.inghams.com.au/FormBuilder/_Resource/_module/eeODKPcYSUCa&gt;9A/file/ING-FY20-Annual-Report.pdf">https://investors.inghams.com.au/FormBuilder/_Resource/_module/eeODKPcYSUCa&gt;9A/file/ING-FY20-Annual-Report.pdf</a> Note page 15 which details percentage efficiencies gained of 3% across the group year.  <b>1 point</b>
5.4 Disclose efforts to collectively address shared water challenges, including: efforts to address the challenges; engagement with stakeholders; and co-ordination with public-sector agencies.	5.4.1	The site's shared water-related challenges and efforts made to address these challenges shall be disclosed.	The site's shared water-related challenges and efforts made to address these challenges and efforts made to address these challenges are reported on the company internet at: <a href="https://inghams.com.au/wp-content/uploads/2020/12/Murarrie-Nov-2020-WS-public-disclosure.pdf">https://inghams.com.au/wp-content/uploads/2020/12/Murarrie-Nov-2020-WS-public-disclosure.pdf</a>  Document is entitled the 'Summary of Water Stewardship Plan Progress and Effort to Shared Water Challenges – Ingham's Murarrie 2018-19'
	5.4.2	Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.	Efforts made by the site to engage stakeholders and coordinate and support public-se-agencies are detailed in 5.2.1 Ongoing meetings are held with QUU. These cover reductions in Trade Waste quality quantity. The BCC – Land for Wildlife, B4C, an update on project progress from Dr Tim from UQ detailed in email dated 27/6/20; reports are prepared and sent to DES are for Annual Return for maintaining the Environmental Licence and Annual Ingham's Board
5.5 Communicate transparency in water-related compliance: make any site water-related compliance violations available upon	5.5.1	Any site water-related compliance violations and associated corrections shall be disclosed.	There are no known compliance violations reported. This is part of the DES Licence requirement. DES Licence Number #EPPR00405713 Trade Waste Licence Number with QUU #9823
	5.5.2	Necessary corrective actions taken	Not relevant

request as well as any corrective actions the site has taken to prevent future occurrences.		by the site to prevent future occurrences shall be disclosed if applicable.	
	5.5.3	Any site water-related violation that may pose significant risk and threat to human or ecosystem health shall be immediately communicated to relevant public agencies and disclosed.	Not relevant

**END OF REPORT**