# WINGHAM BEEF EXPORTS PTY. LIMITED

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our quality your success

## 2017-18 ANNUAL ENVIRONMENTAL MANAGEMENT REPORT

Date: October 08, 2020

**Purpose**

Under the DA 05-00-173 issued by the Department of Planning and Environment, Wingham Beef Exports (WBE) is required to provide an Annual Environmental Management Report (AEMR). This report is designed to update the department of current environmental standards / regulatory requirements, performance including monitoring data, complaints, non-compliance issues and any actions / infrastructure implemented.

**Background**

The Annual Environmental Management Report submitted in July, 2015 included a summary of environmental performance since 2005. Other management plans for conditions 15 to 22 and 40 to 53 were also submitted in August and September, 2015, the department approved this Environmental Management System and related management plans in December 2015. Environmental Management Reports were submitted for the period 2015/16 and 2016/17 notice of its approval was received from the department. This report was submitted and on September 10, 2020 correspondence was received to add further detail and report re-submitted October 8, 2020.

**2017-2018 Production Summary**

For the period 1 July 2017 to 30 June 2018 started with a continued pattern from early 2017 with moderate kill numbers typical five-day working weeks. A maintenance closure was implemented covering the first two weeks of August 2017. The latter part of 2017 saw cattle supply get tight and a slight reduction in working days, followed by a two-week closure over Christmas. The first half of 2018 saw the drought affected area in NSW and southern QLD significantly increase, increased cattle availability coupled with an emerging Chinese demand for beef resulted in six-day production weeks become common. The value of beef globally was gradually increasing making this period profitable for export listed meat processors. During this 2017/18 period slaughter was undertaken on 235 days the lowest kill was 146 (caused by breakdown) then Saturday production 345 but the lowest kill during full production was 543 head. The largest slaughter was 645 head, the average kill rate for this period was 510 head.

**2017-2018 Environmental Management Plan/s Implementation**

**Document Management**

This period saw the incorporation of environmental documentation into the NH Foods Australia electronic system (I-Leader- ENV-MON 007) an electronic system that is a meat industry quality assurance program with total traceability and integrity of data maintained at all times. The system is also a central repository for all documentation relating to environmental and work health safety. The system allows improved monitoring and reporting so trends and other information can be easily identified and retrieved. Prior to this period I-Leader had fields available for raw data entry only and has now been developed to incorporate all aspects of the companies Environmental Management Plan.

**Approvals**

WBE has operated with a range of approvals relevant for our operations table 1 below outlines these. No changes were for made to these approvals for the 2017-18 period.

**Table 1- Approval List**

| Institution | Certificate |
|---|---|
| NSW EPA | EPA Licence 1590 |
| Planning Industry & Environment | DA 05-00-173 |
| DAFF | Approved Arrangements |
| DAFF | Cerificate of Registration |
| DAFF | Licence To Export Meat |
| DAFF | Certificate of Animal By-Product Overseas Listing |
| NSW Food Authority | Licence - Food Regulation 2010 |
| BRC | Global Standard for Food Safety |
| Meat & Livestock Australia | Meat Standards Australia Brand Licence |
| AUS-QUAL | Codex Alimentarius - HACCP (FS300225) |
| AUSMEAT | Slaughter and Dressing of Bovine Animals |
| AUSMEAT | Boning and Packaging of Bovine Carcases |
| AUSMEAT | Packaging of Bovine Variety Meats |
| MID COAST COUNCIL | Paunch disposal DA0225/2006D |
| MID COAST COUNCIL | Paunch disposal DA0226/2006D |

**Noise and Odour**

WBE documented Noise and Odour Management Plan has continued to be implemented. No complaints for noise or odour were made to WBE for this 12-month period. A continuation of planting Lilly pillies partly as a screen for noise was undertaken along the southern boundary. Odour management has been successful at Glenyarra with the continued use of enzyme (4 Earth) treatment to the first aerobic treatment pond. This has improved the effluent treatment and reduced sludge in this pond. Sludge build up is causes odours and this initiative has reduced the potential of offensive odour emissions at this location. Staff and company employee's are encouraged report any offensive noise and odour to management so immediate action can be undertaken if required.

**Wastewater Management**

Wastewater was continued to be managed as outlined in the companies Irrigation Management Plan validation of our sustainable effluent management is detailed below in the environmental performance monitoring summary.

For the period 1 July 2017 to 30 June 2018 WBE transferred 449.6ML of water from the plant for treatment at Glennyarra. The total volume of water used equated to 8.98 kL/t of hot standard carcass weight (HSCW) this is better than the industry standard of < 10.6 kL/t of hot standard carcass weight (HSCW) (note this calculation was made from effluent volume exit plant which includes stormwater runoff).

Result from effluent quality monitored at the irrigation outlet are detailed in Table 2 below. (note all annual test results are not included)

**Table 2. Effluent Quality Monitoring**

| Exit Storage Dam | 21/08/2017 | 28/08/2017 | 31/10/2017 | 10/01/2018 | 30/01/2018 | 20/03/2018 | 31/05/2018 |
|---|---|---|---|---|---|---|---|
| **Ph** | 8 | | 8 | | 7.8 | | |
| **Conductivity (mS/cm)** | 163 | | 154 | | 135.5 | | |
| **BOD** | 30 | | 42 | | 270 | | |
| **Total S/S(mg/L)** | 64 | | 47 | | 60 | | |
| **Total D/S (mg/L)** | 640 | | 770 | | 860 | | |
| **TP (mg/L)** | 25.4 | 22.2 | 47.6 | 16.1 | 19.8 | 11.5 | 17.4 |
| **TN (mg/L)** | 110 | 90.1 | 204 | 77.2 | 70.5 | 53.1 | 108 |
| **Oil & Grease (mg/L)** | <5 | | 10 | | | | |
| **Faecal Coliforms (cfu/100mL)** | ~5200 | | | | | | |

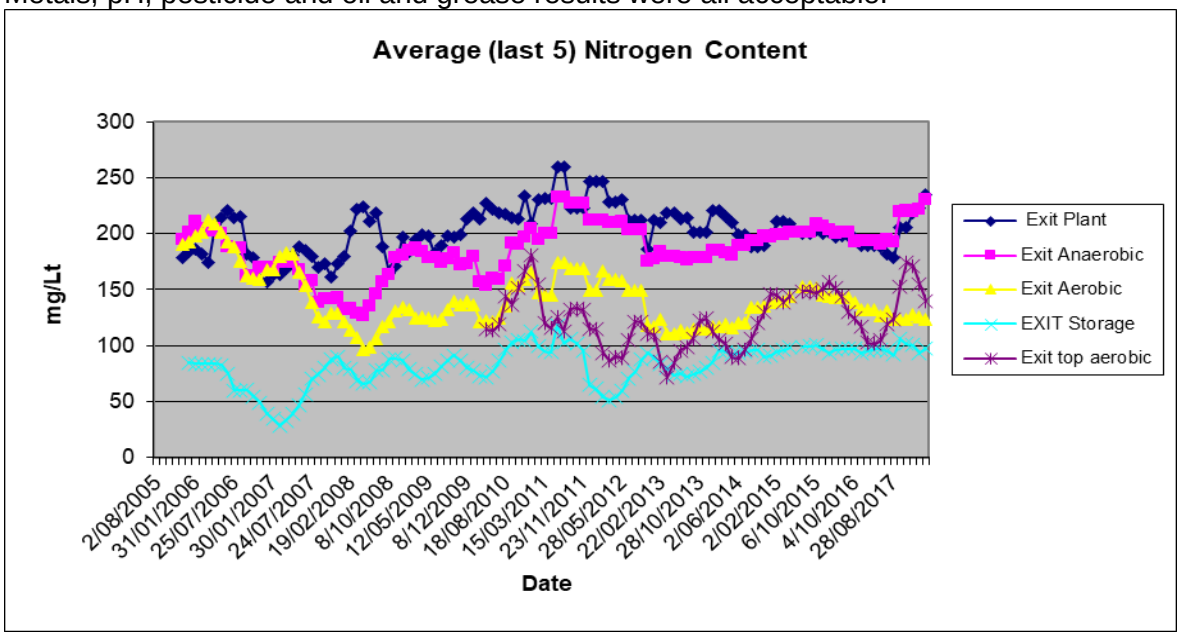
Results were evaluated to access the performance of the treatment system during this period. This data set was typical when compared to previous data with the exception of the spike in total nitrogen and total phosphorus collected on 31/10/2017 these results were potentially contaminated by algae and atypical. The effluent treatment system is stable and working well at reducing solids, oil and grease and nutrient content in the wastewater.

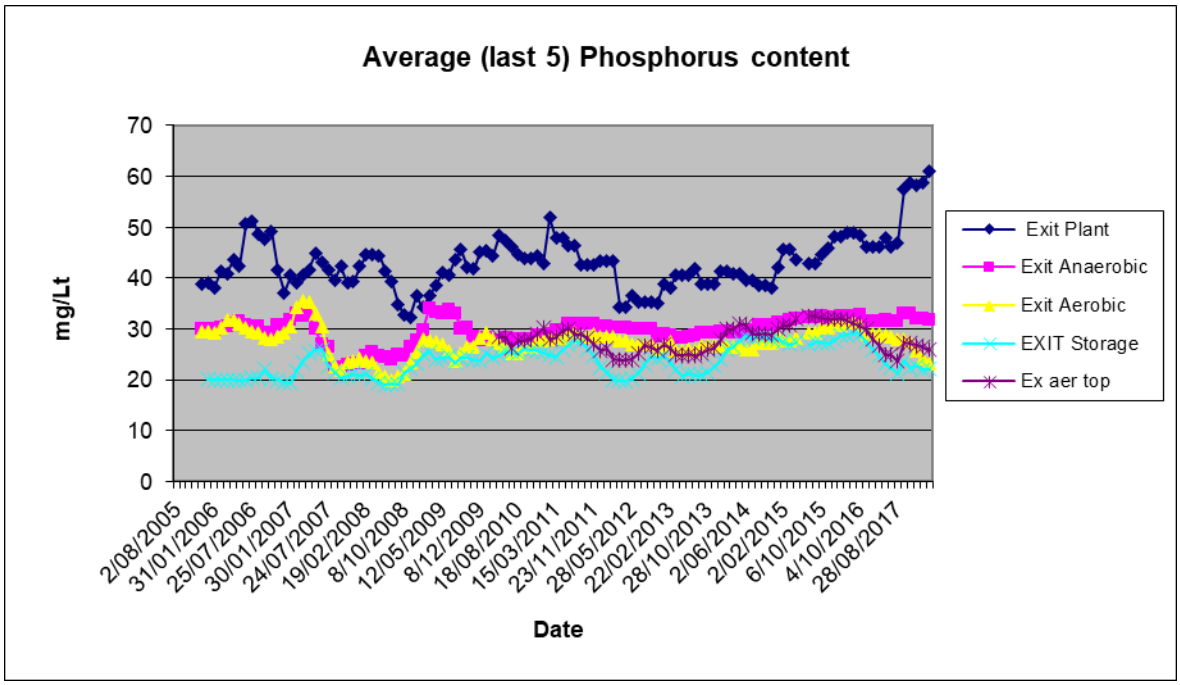
This data set when evaluated against water quality guidelines outlined in Use of Effluent by Irrigation (Dept Env. And Conservation 2004) and the following classification is allocated:

Total dissolved solids, BOD and electrical conductivity as medium strength.

Total Nitrogen (TN) and total phosphorus (TP) as high strength but only just into this category with TN 102mg/L and TP 23mg/L where >100mg/L and >20mg/L considered high. Reference should be made that TN and TP from intensive animal industries typical range in 50-750mg/L and 10-500mg/L respectively.

Metals, pH, pesticide and oil and grease results were all acceptable.






**Irrigation Management**
Effluent volumes continue to be monitored daily at both exit the plant and at points of discharge. The method of recording data has remained unchanged (Appendix 2A) and the data entry and tabulation in I Leader was conducted for the whole of this reporting period. Effluent quality analysis has also been conducted in accordance with the Irrigation Management Plan and results are similar to previous years.

**Soil Monitoring**
Soils samples were collected on August 30 and September 5, 2017 from 3 locations at a series of depths, analysis parameters exceeded those detailed in the Irrigation Management Plan. Results were nearly equivalent to previous years with recommendations by our consulting agronomist implemented to continue sustainability and profit generation from farming activities. Please refer to the attached historical soil test comparison 2010-2019 for trends and recommendations made by MNC Agronomy for soil health at the effluent irrigation site.

**Paunch Management-**
Paunch management has been conducted in accordance with the companies Paunch Management Plan this plan was updated, changes include
* GPS locations and google pictures of the disposal sites
* Enhanced management strategies to meet the requirements of the NSW Government Biosecurity Tropical Soda Apple Control Order 2017.
* Inclusion of electronic monitoring through the company's environmental management system.
The application of paunch to land for agricultural purposes is currently approved at
* 'Wallaby Joe' Bulga Road (DP 754454).
* 'Maryville' and 'Coolangoola' access is from Nowendoc and Archinal Roads. It is proposed that paunch disposal will occur near the western boundary of 'Maryville' (DP 179568).
* 201 Wherrol Flat Road Wingham, Lot 10 DP 107089.
* 66 Teatree Lane Oxley Island, DP 580324.
* Glenyarra 285 Bungay Road, Wingham, Lot 102 DP 812008 Lot 1 DP
Our primary paunch disposal site during this period was Wallaby Joe (DP 754454) the lowest and largest daily disposal was 3 and 6 metric tonne respectively; the average daily disposal was 4.8 metric tonne.

**Table 3 Environmental Complaints Summary**

| | Year | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2006 / 07** | **2007 / 08** | **2008 / 09** | **2009 / 10** | **2010 / 11** | **2011 / 12** | **2012 / 13** | **2013 / 14** | **2014 / 15** | **2015 / 16** | **2016 / 17** | **2017 / 18** |
| **Air** | 2 | 3 | 3 | | 3 | | | 1 | | **2** | **2** | |
| **Water** | | | | | | | | | | | | |
| **Noise** | 1 | | | | | 1 | 1 | | 2 | | 1 | |
| **Waste** | | | | | | | | | | | | |
| **Other** | 1 | | 2 | | | | | | | | | |
| **Total** | **4** | **3** | **5** | **0** | **3** | **1** | **1** | **1** | **2** | **2** | **3** | **0** |

These complaints have been acted on in accordance with our documented procedure see section 9, Environmental Management System. These results are validation WBE is conducting activities to a standard deemed acceptable by the surrounding community.

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- WBE environmental standard is to ensure compliance with parameters detailed under our environmental protection licence (EPA) 1590, relevant conditions in current development approvals (DA) (including DA 05-00-173) and current environmental laws.

- WBE environmental performance for this period has been in accordance with the conditions set in EPA licence 1590, current DA and current environmental laws. Our performance under conditions set in DA 05-00-173 has been verified as part of the company's annual return to the EPA.

- No complaints have been received for this period reported directly WBE or to the EPA.

**2017-18 Environmental Performance Monitoring Summary**

- A summary of monitoring results listed in Tables 1. Effluent monitoring and soil analysis data are consistent with previous year's results and can be forwarded if required.
- Mid- Coast council area enforced water restrictions on February 1 2018, Manning River and tributaries (including Dingo Creek) have significantly less flow than normal.

**Table 4. Nutrient Balances for the total field areas**

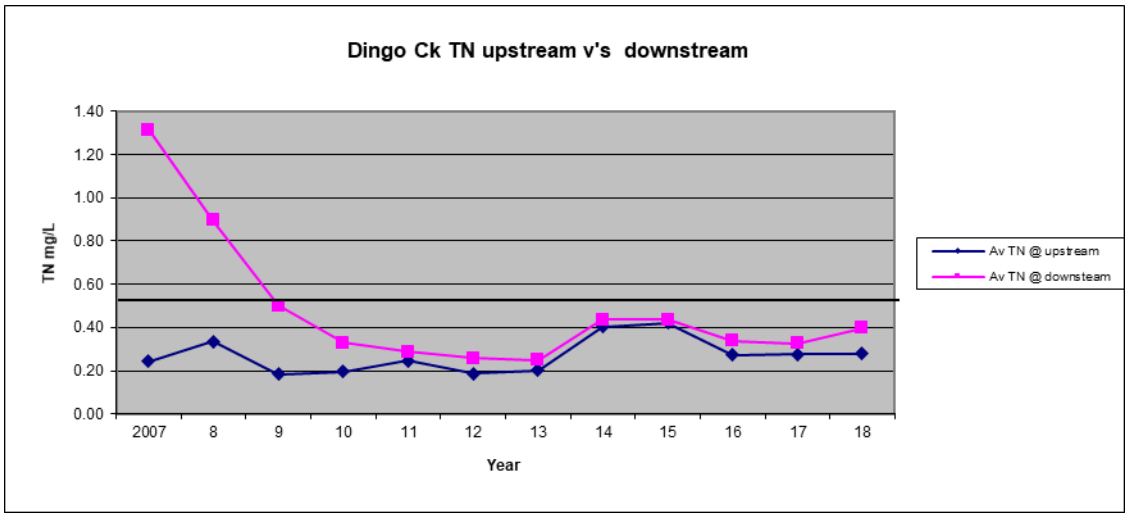
| PERIOD | ACTIVITY | Days Worked | Daily Av Head Killed | Vol. Applied (ML) | Av Vol. ML/day | Av TN (mg/L) | Av TP (mg/L) | N Balance / Hec | P Balance / Hec |
|---|---|---|---|---|---|---|---|---|---|
| 2005 | Cropping / Grazing | 229 | 734 | 311 | 1.35 | 191 | 30 | +199Kg | +41Kg |
| 2006 | Cropping / Grazing | 226 | 731 | 367 | 1.62 | 179 | 30 | +235Kg | +55Kg |
| 2007 | Cropping / Grazing | 217 | 759 | 328 | 1.51 | 118 | 23 | +61Kg | +33Kg |
| 2008 | Cropping / Grazing | 211 | 680 | 238 | 1.12 | 77 | 21 | +17Kg | +19Kg |
| 2009 | Cropping / Grazing | 201 | 668 | 222 | 1.1 | 77 | 24 | -11Kg | +11Kg |
| 2010 | Cropping / Grazing | 202 | 656 | 278 | 1.37 | 99 | 25 | +6Kg | +26Kg |
| 2011 | Cropping / Grazing | 217 | 654 | 287 | 1.32 | 86 | 25 | +5Kg | +14Kg |
| 2012 | Cropping / Grazing | 214 | 550 | 212 | 0.99 | 75 | 22 | +11Kg | +28Kg |
| 2013 | Cropping / Grazing | 237 | 574 | 300 | 1.26 | 80 | 23 | +8Kg | +27Kg |
| 2014 | Cropping / Grazing | 245 | 645 | 309 | 1.26 | 95 | 28 | +56Kg | +30Kg |
| 2015/16 | Cropping / Grazing | 220 | 595 | 306 | 1.39 | 95 | 29 | +25Kg | +68Kg |
| 2016/17 | Cropping / Grazing | 215 | 488 | 205 | 0.95 | 93 | 22 | -49Kg | +24Kg |
| 2017/18 | Cropping / Grazing | 235 | 543 | 338 | 1.44 | 102 | 23 | -5Kg | +3Kg |

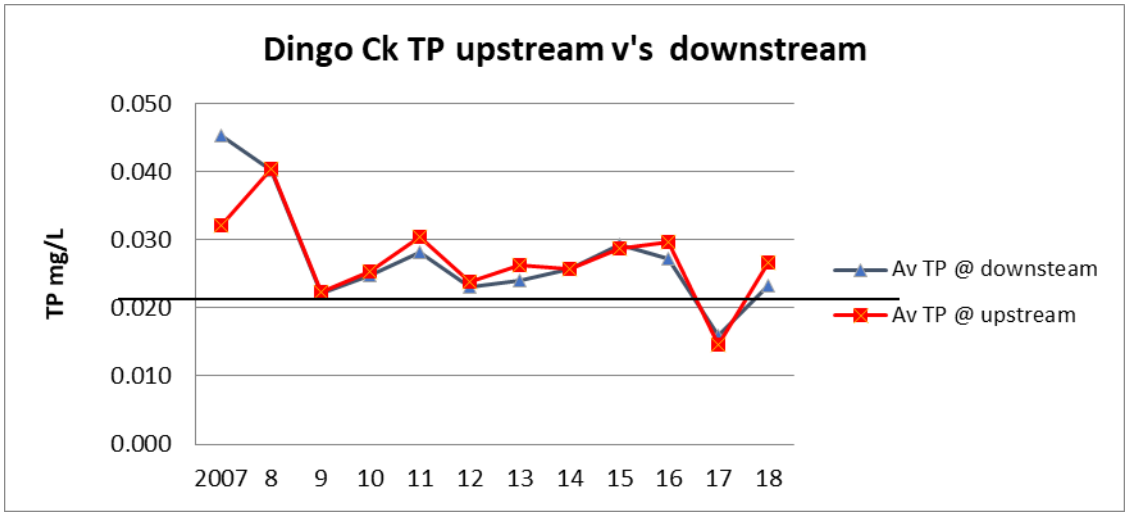
Nutrient balance results are closer to balance than the 2016/17 period, (nitrogen -49Kg/H and phosphorus +24Kg/H) changing the cropping practices and review land management attributed to this. The significant change has been more consideration given to resting crop areas and returning humus (organic) matter back to the soil to improve soil profile. WBE is very satisfied that more sustainable cropping program was undertaken under advice from our consulting agronomist and the nutrient balance results had not adverse impact on our surrounding environment. The continuation of lucerne cropping also improved the phosphorus balance for the property.

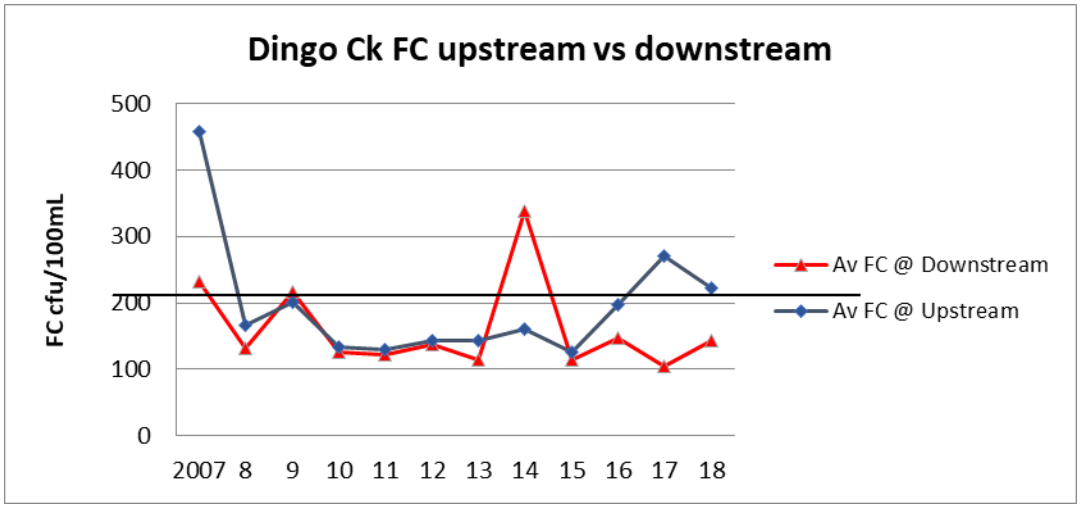
**Table 5. Dingo Creek sampling**

| site | parameter | 28/08/2017 | 31/10/2017 | 30/01/2018 | 17/04/2018 |
|---|---|---|---|---|---|
| upstream | FC | 260 | 390 | 90 | 150 |
| downstream | FC | 80 | 270 | 60 | 160 |
| upstream | Total P | 0.015 | 0.030 | 0.043 | 0.019 |
| downstream | Total P | 0.015 | 0.024 | 0.036 | 0.018 |
| upstream | Total N | 0.16 | 0.32 | 0.44 | 0.20 |
| downstream | Total N | 0.24 | 0.32 | 0.61 | 0.42 |

For all samples collected results were compliant.


Dingo Ck TN upstream v's downstream
TN mg/L
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
2007 8 9 10 11 12 13 14 15 16 17 18
Year
Av TN @ upstream
Av TN @ downsteam


Dingo Ck TP upstream v's downstream
TP mg/L
0.050
0.040
0.030
0.020
0.010
0.000
2007 8 9 10 11 12 13 14 15 16 17 18
Av TP @ downsteam
Av TP @ upstream


Dingo Ck FC upstream vs downstream
FC cfu/100mL
500
400
300
200
100
0
2007 8 9 10 11 12 13 14 15 16 17 18
Av FC @ Downstream
Av FC @ Upstream

## Environmental Management

Environmental monitoring has indicated a slight change in the parameters being monitored at the upstream and downstream sites in comparison to previous years. This could be directly attributed to the low flow rate in Dingo Creek and evidence of unrestricted cattle by neighboring properties. WBE is confident in the management of effluent used for irrigation and believe these changes to management practices were required to ensure a sustainable future for WBE. WBE will continue to monitor environmental data results to ensure our activities do not have an adverse impact on the surrounding environment.

- Compliance with Project Approval DA05-00-173, condition 23-

  The standards, performance measurements and statutory requirements have been met and complied with, this is validated by the above data. Wingham Beef exports will continue to review management practices to ensure the development complies with the conditions of its approval.

- Conclusion for period - July 1, 2017 to June 30, 2018

Similar to 2016-2017 the start of this period was not as busy as previous years prior to 2015, good cattle growing seasons though-out NSW resulted in a reduction in the number of cattle available, kill numbers and days worked were well below our operational capacity. 2018 saw the cattle supply significantly increase and full production return. As indicated in this report this full production has not affected WBE environmental performance with environmental monitoring data reflecting our activities having no adverse impact on our surrounding environment. WBE is proud to continue its sustainable operation that does not adversely impact on the local community.

Yours sincerely:

Glenn Darcy