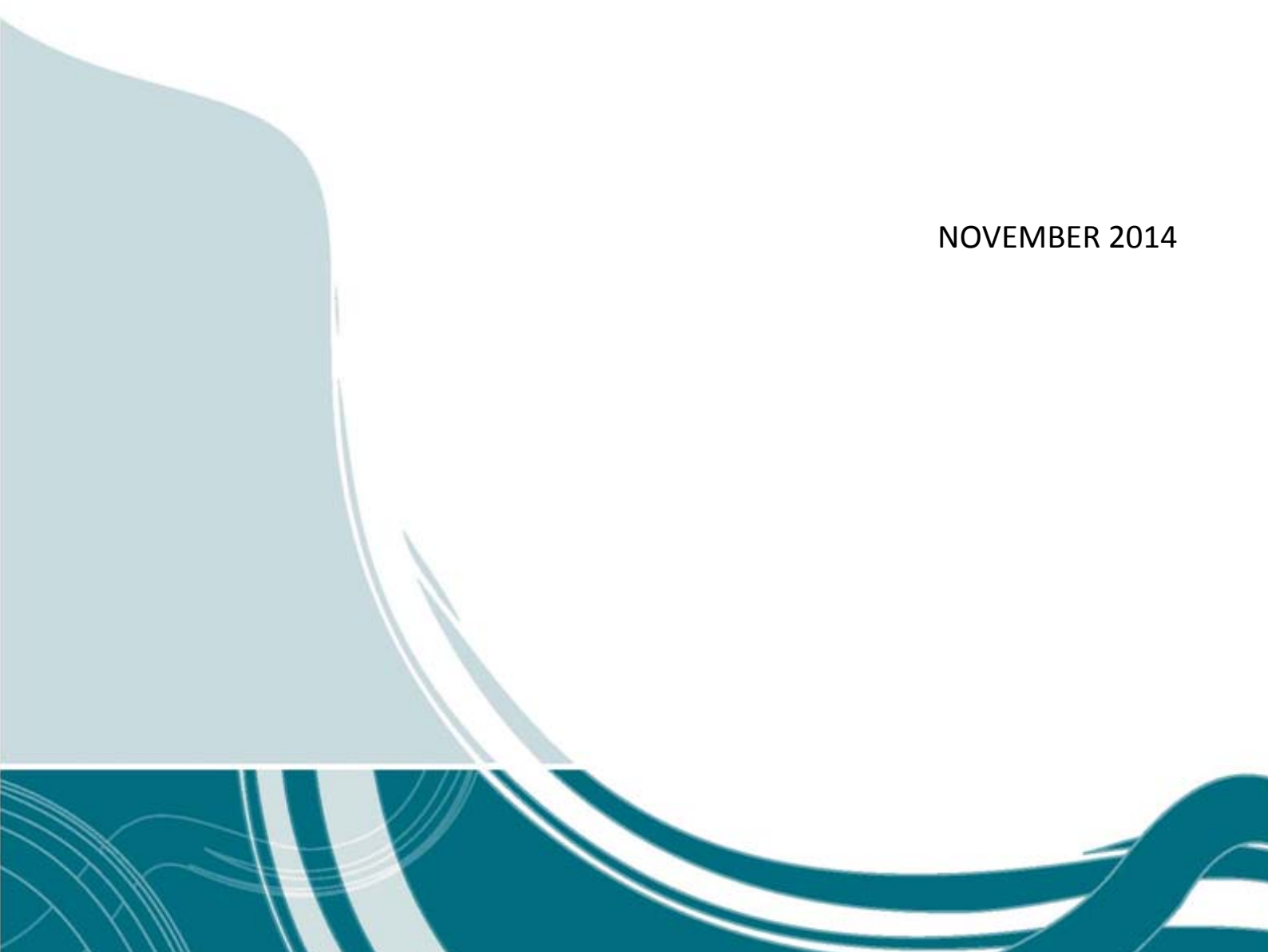


Independent Environmental Audit Report

GOOGONG TOWNSHIP INTEGRATED WATER CYCLE PROJECT

NOVEMBER 2014



Independent Audit

Audit Report Number: 4

AUDITED ORGANISATION	PROJECT
Googong Township Pty Ltd	<p>The following components of Stage 1 of the Googong Township Water Supply Project:</p> <ul style="list-style-type: none">• Stage A Network (east)• Stage AB WRP
LOCATION OF AUDIT	DATE OF AUDIT
Site Office - Googong	28 th October 2014
DEPTH OF AUDIT	SCOPE OF AUDIT
Environmental	<p>The purpose of this independent external audit is to check the Compliance Tracking Program.</p> <p>This audit is undertaken in accordance with AS/NZS ISO 19011:2003.</p> <p>Implementation of the Project and the Contractor CEMP(s) for:</p> <ul style="list-style-type: none">• DN1800 connection (Guideline ACT Pty Ltd)• Stage AB Water Recycling Plant (John Holland Pty Ltd)• Whole-of-project (Googong Township Pty Ltd) <p>Compliance with:</p> <ul style="list-style-type: none">• Project Approval Conditions including Mod 1 and Mod 2• Googong Townships CEMP• Contractor CEMP(s), specifically compliance with procedures and protocols in CEMPs, completeness of monthly environmental reports, maintenance of registers referred to in CEMPs
AUDIT CRITERIA	AUDIT DETAILS
NSW Project Approval	<p>GTPL Office, Googong</p> <p>Opening Meeting: 8:30am – Site Office (all required to be in attendance)</p> <p>Site Inspection (Guideline ACT) 9:00am-10:00am (or as required)</p> <p>Documentation Audit (Guideline ACT) 10:00am to 11:30am</p> <p>Preliminary Close-out Meeting: 11:30am</p> <p>Site Inspection (John Holland) 12:30pm-1:00pm (or as required)</p> <p>Documentation Audit (John Holland) 1:00pm to 2:30pm</p> <p>Preliminary Close-out Meeting: 2:30pm</p> <p>Review of GTPL Documentation: 3:00pm – 4:00pm</p> <p>Final Close-out Meeting: 4:00pm</p>

Independent Audit

Audit Report Number: 4

PROJECT REPRESENTATIVES PRESENT	AUDIT TEAM
Guideline and John Holland Representatives (Mike Fields, John Hyam, Steve Merange, Alyssa Slaney) GTPL Representatives (Matthew Lau, Emily Moore)	Erwin Budde, ngh environmental – Lead Auditor
PREVIOUS AUDIT DATE	PREVIOUS AUDIT REFERENCE
May 2014	ngh environmental (May 2014)

Independent Audit

Audit Report Number: 4

TABLE OF CONTENTS

TABLE OF CONTENTS.....	4
1. REPORT SUMMARY	6
1.1 INTRODUCTION	6
1.2 SCOPE OF AUDIT	6
1.3 SUMMARY OF CORRECTIVE ACTIONS	6
1.4 SUMMARY OF OBSERVATIONS OF CONCERN	7
2 AUDIT PROCESS	8
2.1 OPENING MEETING	8
2.2 CLOSING MEETING	8
2.3 SITE INSPECTION.....	8
2.4 DESIGNATED FOLLOW-UP	8
2.5 PREVIOUS AUDIT FINDINGS.....	8
3 DETAILS OF AUDIT FINDINGS – ACTEW / GUIDELINE ACT (STAGE A NETWORK (EAST))	10
3.1 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN.....	10
3.2 TRAINING, AWARENESS AND COMPETENCE.....	10
3.3 FLORA AND FAUNA.....	10
3.4 HERITAGE.....	10
3.5 NOISE AND VIBRATION.....	11
4 DETAILS OF AUDIT FINDINGS – JOHN HOLLAND (STAGE AB WRP).....	12
4.1 SITE INSPECTION.....	12
4.2 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN.....	12
4.3 FLORA AND FAUNA.....	13
4.4 DEWATERING.....	13
4.5 WASTE	13
5 DETAILS OF AUDIT FINDINGS – GTPL.....	14
5.1 CONDITION OF APPROVAL A1	14
5.2 CONDITION OF APPROVAL A11	14
5.3 CONDITION OF APPROVAL A14	14
5.4 CONDITION OF APPROVAL A18	14

Independent Audit

Audit Report Number: 4

5.5	CONDITION OF APPROVAL B16	14
5.6	CONDITION OF APPROVAL D1	15
5.7	CONDITION OF APPROVAL D2/3	15
5.8	CONDITION OF APPROVAL D7	15
5.9	CONDITION OF APPROVAL D8	15

Independent Audit

Audit Report Number: 4

1. REPORT SUMMARY

1.1 INTRODUCTION

This audit represents an independent environmental audit conducted at the Googong Township Integrated Water Cycle Project (GTWIWCP).

At the time of the audit, the construction of the Stage A Network (east) DN1800 connection was underway, and the construction of the Stage AB Water Recycling Plant had commenced. The works for the flow meter station on Googong Dam Road, Stage A Network (east) had been completed.

The audit included a review of the Googong Townships Pty Ltd (GTPL) system with a focus on compliance against the Conditions of Approval.

1.2 SCOPE OF AUDIT

This audit was undertaken in accordance with AS/NZS ISO 19011:2003.

The scope for this audit was:

1. Implementation of the Project and the Contractor CEMP(s) for:
 - Stage A Network (east) DN1800 connection (Guideline ACT Pty Ltd)
 - Stage AB Water Recycling Plant (John Holland Pty Ltd)
 - Whole-of-project (Googong Township Pty Ltd)
2. Compliance with:
 - Project Approval Conditions including Mod 1 and Mod 2
 - Googong Townships CEMP
 - Contractor CEMP(s), specifically compliance with procedures and protocols in CEMPs, completeness of monthly environmental reports, maintenance of registers referred to in CEMPs

The following approvals, licences, permits and standards were audited:

- Project Approval MP 08-0236 and Mod 1 and Mod 2
- Management Plans
 - Guideline ACT Pty Ltd
 - John Holland Pty Ltd

1.3 SUMMARY OF CORRECTIVE ACTIONS

The following Corrective Action Requests (CAR's) were identified and explained to Guideline ACT, John Holland and GTPL during the audit and Closing Meeting. They are considered to be deficiencies in meeting specified requirements.

Independent Audit

Audit Report Number: 4

CAR No.	Section of Report	Details
1	4.1	The sediment basin spill way was not lined with geofabric (John Holland)
2	4.1	A 1000L contained of flocculent was located in a position where it could easily be struck by plant or vehicles (John Holland)
3	4.4	It is considered that more samples should been tested for a period of time after the 11:10am sample to ensure that pH and turbidity had stabilised. Corrective Action Request 3 (John Holland)
4	4.4	There is also no evidence that the water quality as tested prior to flocculation. Corrective Action Request 4 (John Holland)

1.4 SUMMARY OF OBSERVATIONS OF CONCERN

The following Observations of Concern (OoC) were identified and explained to ACTEW, Guideline ACT, John Holland and GTPL during the audit and Closing Meeting. They are considered to be deficiencies in meeting specified requirements.

OoC No.	Section of Report	Details
1	3.1.2	The SWMP does not require an after rain inspection to be undertaken or a record to be maintained. It is recommend that this should be implemented. Observation of Concern 1 (John Holland)
2	4.4	The SWMP Appendix B includes EC as a parameter for testing. EC is not being tested for. It is not clear why EC should be tested for as the activities on site are unlikely to affect conductivity. Either EC should be tested for, or this requirement removed from the SWMP. Observation of Concern 2 (John Holland)

Independent Audit

Audit Report Number: 4

2 AUDIT PROCESS

2.1 OPENING MEETING

An opening meeting was held at 8:30am on the 28th October 2014, attended by Emily Moore (RPS Manidis Robers), Katherine Hurley (GTPL), John Hyam (ACTEW), Michael Fields (Guideline ACT), Alyssa Slaney and Alistair (John Holland).

2.2 CLOSING MEETING

A preliminary closing meeting was held with ACTEW/Guideline ACT on site at 11:30am on the 28th October, attended by John Hyam (ACTEW) and Michael Fields (Guideline ACT).

A preliminary closing meeting was held with John Holland on site at 2:30pm on the 28th October, attended by Alyssa Slaney, Simba Kippaya and Alistair.

A final closing meeting was held at GTPL offices at 4:30pm on the 29th October, attended by Matthew Lau, Katherine Hurley (GTPL) and Emily Moore (RPS Manidis Roberts).

2.3 SITE INSPECTION

A site inspection was conducted at both the Stage A Network (east) and Stage AB WRP sites on the 29th October 2014. The contractors are ACTEW/Guideline ACT and John Holland.

On the ACTEW/Guideline ACT site (Stage A Network (east), works being undertaken at the time of the audit included rock excavation to create the foundations for the retaining walls and processing of rock at the Huon site for importing onto the project for the crane pad. The pipeline cut-in had been completed, and the next stage of works include finalising the crane pad and plating trees.

On the John Holland site (Stage AB WRP), bulk earthworks were continuing including excavation for the Filtration Aeration Tank (FAT). Concrete blinding is occurring and steel fixing for the bioreactor was continuing. The next stage of works include detailed excavation and concrete pouring.

2.4 DESIGNATED FOLLOW-UP

A follow-up of the audit findings will be managed by GTPL to verify the completion of all corrective actions.

2.5 PREVIOUS AUDIT FINDINGS

A review of the previous audit's findings was undertaken.

Independent Audit

Audit Report Number: 4

Finding	Details	Status
CAR 1	The LMP is not a practical document that is easy to implement on site by on site staff.	Open
CAR 2	A Bushland Regenerator was required to provide a report with mapping that identified the areas subject to weed invasion. The report has not been prepared.	Open
CAR 3	Topsoil stripping commenced prior the Bushland Regenerator report was completed and its findings action.	Closed – no action undertaken
CAR 4	Inadequate soil testing was undertaken prior to the commencement of landscaping works.	Closed – no action undertaken
CAR 5	Landscaping reporting including the 6-monthly and quarterly reports are not being completed.	Open – quarterly reporting not occurring Closed – 6-monthly reporting being undertaken
CAR 6	Photographic monitoring points have not been established	Closed
CAR 7	Native plant cover and weed cover targets are not being monitored	Open
OoC 1	'High weed infestation' areas are not defined in the FFMP and there are no maps that indicate where these areas are.	Closed

Independent Audit

Audit Report Number: 4

3 DETAILS OF AUDIT FINDINGS – ACTEW / GUIDELINE ACT (STAGE A NETWORK (EAST))

3.1 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

3.1.1 *General*

The CEMP was recently revised (Version 7).

3.1.2 *Inspections and Audits*

Richard Sharp undertakes the ER inspection fortnightly. This includes a check on actions from previous audits and a report is provided. Each action item is signed off as it is completed. September records were checked and all were adequately signed off.

Weekly environmental inspections are conducted using standard QA form. Weekly records inspected – 23/10. Additional comments are noted on the bottom of the forms and acted upon. The same form is used for inspections after rain.

3.1.3 *Incidents and NCRs*

No incidents have occurred since the last audit for this component of the GTWIWCP.

3.2 TRAINING, AWARENESS AND COMPETENCE

Toolbox talks are undertaken almost every day, many of which contain environmental topics such as spills, heritage and flora and fauna and are mostly attended by Guideline staff.

Basic induction training is undertaken by Guideline with specifics points added where relevant to the project. ACTEW staff are inducted into Guidelines systems. Policy and relevant environmental information is displayed in the meal shed.

3.3 FLORA AND FAUNA

Additional clearing was undertaken in early August. Bosis undertook a pre-clearing inspection and installed nest boxes prior to clearing (3rd July). A letter dated 3rd July verifies this. On the 16th July, Bosis attended the clearing activity.

Protection measures remain in place at existing flora and fauna sensitive sites.

3.4 HERITAGE

No heritage items are of relevance to the current stage of works. Protection measures remain in place at existing heritage sites.

Independent Audit

Audit Report Number: 4

3.5 NOISE AND VIBRATION

Out of hours works was carried out on Saturday 18th and Sunday 19th October. Initially it was expected that out of hours works would also be undertaken the previous weekend but it was ultimately not needed.

Letters were dropped at residences C1, C2, R10, R11, R12 and R14 on 9th October, 48 hours before the planned event, as required by the CoA. Note, the NVMP actually requires notification 7 days prior to the event.

No noise monitoring was required during the works. No complaints were received.

Independent Audit

Audit Report Number: 4

4 DETAILS OF AUDIT FINDINGS – JOHN HOLLAND (STAGE AB WRP)

4.1 SITE INSPECTION

The site inspection noted several issues:

1. The sediment basin spill way was not lined with geofabric (**Corrective Action Request 1**)
2. A 1000L contained of flocculant was located in a position where it could easily be struck by plant or vehicles (**Corrective Action Request 2**)
3. Cut drains need to be monitored closely for signs of erosion, and if erosion is occurring, these should be lined appropriately.

4.2 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

4.2.1 *General*

John Holland were using Version 6 of the CEMP.

4.2.2 *Inspections and Audits*

Weekly inspection are undertaken by John Holland (inspection records from 10/10 and 16/10 were observed). Every second week, Richard Sharp undertakes the ER inspection. A score-based system is employed by John Holland. Issues raised by the ER are transferred onto the John Holland Event Tracker (JHET) system, whilst issues raised by John Holland are noted only on the individual inspection record. A consolidated register is currently being developed to replace this system, with consideration being given to integrating the register into the JHET system.

The Contract Managers, BMCA, also do weekly inspections. To date, no environmental instructions have been issued. Inspection record from the 17/10 was observed.

Other inspections and records being maintained include dewatering records (for the sediment basin), waste, energy and water use records.

The SWMP does not require an after rain inspection to be undertaken or a record to be maintained. It is recommend that this should be implemented. **Observation of Concern 1.**

4.2.3 *Incidents and NCRs*

No incidents have occurred since the works commenced for this component of the GTWIWCP.

Independent Audit

Audit Report Number: 4

4.3 FLORA AND FAUNA

Clearing works were undertaken by Huon before John Holland took possession of the site as part of the early works component of the GTWIWCP (separate to the Stage AB WRP component). At the Stage AB WRP site, a single tree, located on the northern boundary, is being protected by parawebbing.

4.4 DEWATERING

The dewatering procedure was reviewed and the dewatering record from 20/10 was viewed. Water quality is tested by a multi-probe (NTU, pH). This was last calibrated on 4/9/14 by Australian Scientific. It is calibrated every 2 weeks on site using a supplied calibration kit, and every 6 months by Australian Scientific.

The dewatering event on 20/10 was reviewed in detail. Flocculation occurred on the 19/10 following the rain event. The pH recorded following flocculation was very low, 3.7, and NTU remained high at 250. Lime was added to raise the pH, which after several tests was recorded within the discharge range at 11:10am. The 11:10am test also showed NTU to be in spec. No further samples were tested and water was discharged immediately.

It is considered that more samples should been tested for a period of time after the 11:10am sample to ensure that pH and turbidity had stabilised. **Corrective Action Request 3.**

There is also no evidence that the water quality as tested prior to flocculation. **Corrective Action Request 4.**

The SWMP Appendix B includes EC as a parameter for testing. EC is not being tested for. It is not clear why EC should be tested for as the activities on site are unlikely to affect conductivity. Either EC should be tested for, or this requirement removed from the SWMP. **Observation of Concern 2.**

4.5 WASTE

No separation of waste is occurring on site. It is noted that the waste contractor has advised that they do not collect separated waste. The auditee was not sure where the waste contractor was taking the waste. It is possible that the waste transfer site separates waste. The auditee should determine whether this is the case and provide this information to GTPL.

Independent Audit

Audit Report Number: 4

5 DETAILS OF AUDIT FINDINGS – GTPL

5.1 CONDITION OF APPROVAL A1

Consistency reviews have been prepared for several design changes. It is noted that all consistency reviews are submitted to DPE for their review/information.

5.2 CONDITION OF APPROVAL A11

Consultation with Council is required in relation to detailed design. The detailed design process for SPS2 was investigated for compliance with this requirement.

Ongoing consultation was noted with Council regarding SPS2. In addition to this, formal consultation occurred at the 80% Design Phase with a complete set of drawings submitted to Council. A list of issues/requests were provided by Council.

In addition, a Design and Coordination Steering Committee is in operation. This committee meets every 2-3 weeks to discuss design issues. Agenda's and minutes were observed.

5.3 CONDITION OF APPROVAL A14

Community notification that has occurred since the last audit include:

25/9 – Out of Hours Works notifications

13/8 – Announcement of the commencement of construction on the WRP

25/7 – Queanbeyan Age community update

10/7 – Facebook page education post

24/6 – Announcement of the WRP via the website

5.4 CONDITION OF APPROVAL A18

The January-June 2014 Compliance Tracking Report was submitted to DPE on 19/9/2014.

5.5 CONDITION OF APPROVAL B16

A separate Landscape Management Plan has been prepared for the WRP. The LMP was issued to DPE on 5/9. Approval was granted by DPE on 19/9. Consultation with QCC was observed.

Independent Audit

Audit Report Number: 4

5.6 CONDITION OF APPROVAL D1

GTPL undertook noise monitoring during construction for Stage AB WRP early works. The NVMP states that GTPL are required to monitor works at one point during construction (so as to gauge if the modelling was correct). GTPL decided to monitor during the noisiest works to get the data. Now that is complete, the control measures state that monitoring is only required if there is a complaint.

The Googong Township TWC Project Consultation Manager identified there was an enquiry from a potential purchaser regarding the noise of the aeration blower near SPS1. GTPL engaged SLR Consulting (noise consultant) to conduct noise monitoring. Following the noise monitoring the following measures were put in place by the IWC team:

- Casing around the aeration blower
- Silencer and pipework installed on the odour control unit

5.7 CONDITION OF APPROVAL D2/3

Ongoing water quality monitoring is occurring. Ecowise and QCC are involved in potable water testing.

5.8 CONDITION OF APPROVAL D7

The OEMP for Stage 1 Network was approved in September 2013.

Staged preparation and implementation of OEMPs will continue to occur.

5.9 CONDITION OF APPROVAL D8

Baseline water quality data collection has been completed. With the delay of the WRP, further monitoring is not yet required.