

**From:** Sch 2 2.2(a)(ii) [redacted]@alluvium.com.au  
**Sent:** Friday, 9 November 2018 11:55 AM  
**To:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Cc:** Sch 2 2.2(a)(ii) [redacted]@alluvium.com.au; Taylor, Nick <Nick.Taylor@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>  
**Subject:** RE: Isabella Wetlands Draft O&M Plan [SEC=UNCLASSIFIED]

Hi Stuart, I apologise for the delay.

I have read over the attached Letter of Design Review and the requirements listed in there to complete the O&M.

The fee to write the manual including an allowance for revision/comments from yourself is \$7,760 ex GST. This includes time from myself, Sch 2 2.2(a)(ii) [redacted], drafting for plans/maps to display operation requirements, sourcing any additional information needed from Guideline on materials, internal review and allowance for addressing of comments.

In terms of timing we have moved a few things around next week to clear some space and get a draft back to you by end of the week.

Can you let me know if your happy to proceed?

Regards

Sch 2 2.2(a)(ii) | Alluvium Consulting  
 Sch 2 2.2(a)(ii) [redacted]  
 Sch 2 2.2(a)(ii) [redacted]@alluvium.com.au

**From:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Sent:** Friday, 9 November 2018 9:44 AM  
**To:** Sch 2 2.2(a)(ii) [redacted]@alluvium.com.au  
**Cc:** Sch 2 2.2(a)(ii) [redacted]@alluvium.com.au; Taylor, Nick <Nick.Taylor@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>  
**Subject:** RE: Isabella Wetlands Draft O&M Plan [SEC=UNCLASSIFIED]

Sch 2 2.2(a)(ii) [redacted]

Have you had a chance to prepare the fee proposal for the O&M manual? During the Close Out workshop on 30/10 I believe you advised that you would submit it by the end of last week. This is now becoming urgent. Can you please submit it by COB today.

Thanks,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email:** [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** Oxborrow, Stuart  
**Sent:** Friday, 19 October 2018 9:37 AM  
**To:** Sch 2 2.2(a)(ii) [redacted]@alluvium.com.au  
**Cc:** Sch 2 2.2(a)(ii) [redacted]@alluvium.com.au; Taylor, Nick <Nick.Taylor@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>; Sch 2 2.2(a)(ii) [redacted]@pes.net.au  
**Subject:** FW: Isabella Wetlands Draft O&M Plan [SEC=UNCLASSIFIED]

Thanks Sch 2 2.2(a)(ii) [redacted]

I think your document is a good start.

We actually need an O&M manual which is structured so that the topics in Section 8 of the attached Letter of Design Review are individually addressed. Some of the topics may not be relevant to Isabella Wetland, in which case 'not applicable' should be quoted in the manual .

Attached are some data sheets received from the contractor to date.

Can you please provide a short reverse brief and a fee proposal to prepare the O&M manual in accordance with Section 8 of the Letter of Design Review and get it approved by TCCS asset acceptance.

Thanks,

Stuart

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**

Capital Works, Transport Canberra and City Services Directorate | **ACT Government**

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**From:** [Sch 2 2.2(a)(ii)] [\[redacted\]@alluvium.com.au](mailto:[redacted]@alluvium.com.au)

**Sent:** Friday, 12 October 2018 11:48 AM

**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>

**Cc:** [Sch 2 2.2(a)(ii)] [\[redacted\]@alluvium.com.au](mailto:[redacted]@alluvium.com.au)

**Subject:** Isabella Wetlands Draft O&M Plan

Hi Stuart,

As discussed please find the attached draft Operation and Maintenance Plan we started work on for the Isabella Wetland project. In the end it was never finished as scope and time was required to focus on other parts of design. Thus please consider it as preliminary and still needing work to refine and finish off.

Once you have had a chance to go through it let me know which guidelines/standards or other info you want included and I'll prepare the fee to complete it.

Any questions, please feel free to call me.

Regards

[Sch 2 2.2(a)(ii)] | Alluvium Consulting

[M] [Sch 2 2.2(a)(ii)]

[Sch 2 2.2(a)(ii)] [\[redacted\]@alluvium.com.au](mailto:[redacted]@alluvium.com.au)

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**From:** "Taylor, Nick"  
**Sent:** 13/11/2018 3:42 AM  
**To:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Cc:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Subject:** FW: Isabella Weir & Wetlands - projected staffing costs [SEC=UNCLASSIFIED]  
**Attachments:** Isabella Weir Wetlands - CA Team Projection Nov18 to end of project\_GL edits 13Nov18.xlsx

We can discuss tomorrow before I respond to PES

Regards Nick

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**From:** [Sch 2 2.2(a)(ii)]@pes.net.au  
**Sent:** Tuesday, 13 November 2018 12:41 PM  
**To:** Taylor, Nick <Nick.Taylor@act.gov.au>  
**Subject:** Isabella Weir & Wetlands - projected staffing costs

Hi Nick

Pls find attached draft of future costs. There are a few elements in the spreadsheet that I'm not fully familiar with that we probably need to discuss further. Feel free to correct the spreadsheet based on your understanding of arrangements etc. I have updated the remarks column to help explain some of the calcs. Talk further in the coming days.

Kind regards

[Sch 2 2.2(a)(ii)]

Director, Professional Engineering Service Pty Ltd  
16 Black Swan Terrace, West Haven, NSW 2443  
Phone [Sch 2 2.2(a)(ii)], Mobile [Sch 2 2.2(a)(ii)]



| No | Name  | Role                                 |  |         |         |         |         |         |         |        |        |        |          | Remarks  |
|----|---|--------------------------------------|--|---------|---------|---------|---------|---------|---------|--------|--------|--------|----------|--|
|    |   |                                      | Nov-18   | Dec-18  | Jan-19  | Feb-19  | Mar-19  | Apr-19  | May-19  | Jun-18 | Jul-18 | Aug-18 | \$       |  |
| 1  | Contract Admin & Admin Support  | CA                                   | Sch 2 2.2(a)(xi)   |         |         |         |         |         |         |        |        |        |          | Sch 2.2 worked 6 days in Nov then Sch 2.2 PAP 1/2 time from 9 Nov onwards. Nov = 20 work days, RDO on 26 Nov. Dec = 15 work days up to 21 Dec from 18 max work days, RDO on 24 Dec + 2 PHs |
|    | Avg. rate / month   | 6500                                 |  |         |         |         |         |         |         |        |        |        |          |  |
| 2  | Sch 2 2.2(a)(ii)  | SRE/PAP                              |  |         |         |         |         |         |         |        |        |        |          | As above remarks   |
|    |   | 29600                                |  |         |         |         |         |         |         |        |        |        |          |  |
| 3  | Sch 2 2.2(a)(iii)   | SO - Civil & Structures Works        |  |         |         |         |         |         |         |        |        |        |          | Estimate, number of days worked in Nov to be confirmed.  |
|    |   | 13015                                |  |         |         |         |         |         |         |        |        |        |          |  |
| 4  | Envirolinks Pty Ltd   | Landscape Architect - sub consultant |  |         |         |         |         |         |         |        |        |        |          | Not familiar with current arrangement?   |
|    |   | 1760                                 |  |         |         |         |         |         |         |        |        |        |          |  |
| 5  | Survey Validation   | Surveyors                            |  |         |         |         |         |         |         |        |        |        |          | Allowance as PS for final survey checks/audits & assessment of contractors WAE survey details.   |
|    |   | PS                                   |  |         |         |         |         |         |         |        |        |        |          |  |
| 6  | Contract administration from Completion of the Whole of the Works through to Final Payment Schedule, Including Close-out Workshop | PAP                                  | One day per week on average. Not identified in RFT.                                      |         |         |         |         |         |         |        |        |        |          |  |
|    |   | 5920                                 |  |         |         |         |         |         |         |        |        |        |          |  |
| 7  | Contract administration during consolidation period   | PAP/CA                               | Assume consolidation commences 1 Dec. One day per week on average. Not identified in RFT |         |         |         |         |         |         |        |        |        |          |  |
|    |   | 5920                                 |  | \$5,920 | \$5,920 | \$5,920 | \$5,920 | \$5,920 | \$5,920 |        |        |        | \$35,520 |  |

**From:** "Sch 2 2.2(a)(ii)" <[redacted]@pes.net.au>  
**Sent:** 14/11/2018 11:45 AM  
**To:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; Sch 2 2.2(a)(ii)@guidelineact.com.au" <[redacted]@guidelineact.com.au>; Sch 2 2.2(a)(ii)@guidelineact.com.au" <[redacted]@guidelineact.com.au>; "Webber, Simon" <Simon.Webber@act.gov.au>; "Sch 2 2.2(a)(ii) [redacted]@alluvium.com.au>; "Sch 2 2.2(a)(ii) [redacted]@smec.com>; "McGrath, Michael" <Michael.McGrath@act.gov> Sch 2 2.2(a)(ii) [redacted] "Parkinson, Andrew" <Andrew.Parkinson@act.gov.au>; "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Sch 2 2.2(a)(ii) [redacted]@pes.net.au>; "Sch 2 2.2(a)(ii)@pes.net.au" <[redacted]@pes.net.au>; "Sch 2 2.2(a)(ii) [redacted]@envirolinks.com.au>  
**Cc:** "Crocker, Leigh" <Leigh.Crocker@act.gov.au>; "Smith, Darren" <Darren.Smith@act.gov.au>  
**Subject:** IWW GC21 Closeout Workshop minutes  
**Attachments:** Minutes CloseoutWorkshop 30 Oct 18.pdf

Hi All

I have received and incorporated edits to the draft report – see attached Final version.

Sch 2 2.2(a)(ii) [redacted]: thanks for your clarifications in particular and my apologies for not re-sending this when I finished it last Friday evening Sch 2 2.2(a)(ii) [redacted] prompted me this morning...

Regards

Sch 2 2.2(a)(ii) [redacted]

Director, Professional Engineering Service Pty Ltd  
 3/6 St Georges Crescent, Drummoyne NSW 2047  
 Phone Sch 2 2.2(a)(ii) [redacted], Mobile Sch 2 2.2(a)(ii) [redacted]




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**From:** Sch 2 2.2(a)(ii) [redacted]@pes.net.au>  
**Sent:** Tuesday, November 6, 2018 6:14 PM  
**To:** [LIST]  
**Cc:** [LIST]  
**Subject:** IWW Closeout Meeting minutes

All attendees  
 (and apologies FYI)

Attached are draft minutes of last week's Closeout Workshop.

Please respond promptly with corrections if you identify anything wrong or odd. I plan to issue the final version of Friday.

Regards

Sch 2 2.2(a)(ii) [redacted]

Director, Professional Engineering Service Pty Ltd  
 3/6 St Georges Crescent, Drummoyne NSW 2047  
 Phone Sch 2 2.2(a)(ii) [redacted], Mobile Sch 2 2.2(a)(ii) [redacted]





## GC21 Project Close-out Workshop

### Isabella Weir and Wetlands project

Client: ACT Government, Transport Canberra and City Services (TCCS) – Land Release Infrastructure (LRI) section

Contractor: Guideline ACT

Contract number: 2017.22501.330

**Tuesday 30 October 2018 at 12:30pm**

at

**Nature Conservation House, Belconnen, ACT**

Facilitator and Minutes: Sch 2 2.2(a)(ii)

Sch 2 2.2(a)(ii)



**Close-out Workshop** ref GC21 Clause 70

**MINUTES**

**Welcome by Facilitator**

Facilitator Sch 2 2.2(a)(ii) (PES) welcomed participants and described the objective of the Workshop being to wrap up the process of monitoring the project as per the GC21 contract. The start up meeting sets up the criteria for assessment of the project and the close out meeting is to determine the success of the project based on these criteria. The purpose of the workshop is to

- Provide a realistic assessment of overall performance by the workshop participants.
- Review the management processes of the contract.
- Collect and provide feedback to the parties on things such as design, the contract documents, communication and co-operative contracting strategies and relationships, with the aim of enabling participants to improve the overall communication and management process for any future contracts

**Introduction of Participants**

The workshop was attended by representatives of the various parties involved in the management of the contract and delivery of the project. Participants were:

| Name                    | Organisation / Position (for context)  | Contacts                                   |
|-------------------------|--|--|
| Sch 2 2.2(a)(ii)        | Professional Engineering Service Pty Limited:<br>Facilitator                                 | Sch 2 2.2(a)(ii)                           |
|                         | Guideline ACT P/L<br>Contractor's Authorised Person  |  |
|                         | Guideline ACT P/L<br>Contractor's Senior Executive   |  |
| <b>Simon Webber</b>     | IFCW Civil<br>Senior Procurement Officer   | Simon.Webber@act.gov.au<br>0481 918519     |
| Sch 2 2.2(a)(ii)        | Alluvium<br>Wetlands designer  | Sch 2 2.2(a)(ii)                           |
|                         | SMEC<br>Weir Designer  |  |
| <b>Stuart Oxborrow</b>  | TCCS-LRI<br>Client's Representative  | Stuart.Oxborrow@act.gov.au<br>0419 333179  |
| <b>Michael McGrath</b>  | TCCS-LRI<br>Senior Program Manager, Client's Representative                                  | michael.mcgrath@act.gov.au<br>0403 939920  |
| Sch 2 2.2(a)(ii)        | TCCS-LRI<br>Surveillance Officer   | Sch 2 2.2(a)(ii)                           |
| <b>Andrew Parkinson</b> | IFCW<br>Acting Principal's Senior Executive  | Andrew.Parkinson@act.gov.au<br>0478 301085 |
| <b>Nick Taylor</b>      | IFCW<br>Senior Project Officer   | Nick.Taylor@act.gov.au<br>6207 0118        |
| Sch 2 2.2(a)(ii)        | Professional Engineering Service Pty Limited<br>Principal's Authorised Person after 8 Nov 18 | Sch 2 2.2(a)(ii)                           |
|                         | Professional Engineering Service Pty Limited<br>Principal's Authorised Person                |  |
|                         | Envirolinks Design<br>Landscaping Surveillance Officer                                       |  |

Apologies: Sch 2 2.2(a)(ii): Principal's Senior Executive  
Leigh Croker: EPSDD – Design Manager, Isabella Weir. Leigh.Crocker@act.gov.au





## Opening Statements

*describing each organisation's overview of the contract and the project*

### **ACT TCCS-LRI** - Senior Program Manager. Client's Representative - Michael McGrath

Isabella Weir and Wetlands Project is a complex project with considerable stakeholder management. The project team has successfully engaged and incorporated community and Commonwealth Healthy Waterways requirements. The way in which the project has been delivered has minimised the impact on the adjacent community while maximising the future amenity for that community.

The wetlands has had great success in improving water quality and habitat rehabilitation including:

- Carp removal for water quality improvement minimising invasive species mitigation
- Slurry and soil substrate removal from the pond; and
- Reuse of removed sediment across project with Guideline exhibiting great innovation in this area

The team has managed risk well throughout the construction stage of the project. The need to manage a Dam Safety Emergency Plan and all of the additional requirements of the new ACT Dam Safety Code have been discharged efficiently and effectively. While careful thought was given to the staging and safety needs of the project at the design stage, the willingness and ability of the team to put safety at the forefront of everyone on site is acknowledged.

The whole team has had a "what is best for project" as issues have arisen and needed to be resolved. The team has drawn on the strengths and abilities of members in the development of solutions to issues. The team anticipated issues and sought to proactively implement strategies to minimise the potential impact of these issues. Good examples include the workshops with the concrete placers and the concrete suppliers to make them aware of the needs of the project and our expectations.

Working relationships were strong throughout the project. Overall project attitudes and behaviours have been positive and desired. Continued open communication ensured behaviours and attitudes were maintained in a beneficial way. It was the strength of these relationships that enabled the "hard conversations" to be held. This was evident when we needed to modify the mix design and incorporate design changes.

Good use of the provisions of the GC21 contract meant that early warnings were given and the cooperative way that the team worked meant that the impact on quality, time and cost have been well managed. This was recognised and the scores given in the regular Team Performance and Evaluation Monitoring reflect this recognition.

This has been a complex project well delivered that all team members should be pleased to have on their work history.

### **Guideline ACT** – Contractor's Authorised Person Sch 2 2.2(a)(ii)

Sch 2 2.2(a)(ii) started late on the project and started by re-familiarising with "Canberra". Thanks for the opportunity.

Sch 2 2.2(a)(ii) review of history was illuminating showing hurdles met by the team and addressed.

On site he recognises project pride from ground level to the top.

Clear goals are given to all. Some aspects are challenging (such as quick changes in water levels).

Wants to walk away recognising a job well done, safe and on time.

### **Guideline ACT** – Contractor Sch 2 2.2(a)(ii)

Project participation for Guideline commenced late in 2016. For them it was a targeted project and since being awarded is their signature project.

Sch 2 2.2(a)(ii) recognises all elements of the team.

The job works due to good communications. Sometimes it isn't easy but the job is done.


**IFCW** - Procurement Officer - Nick Taylor

The Isabella Weir/Wetland has run for over four years from concept to completion, and most have survived the process, which is usually a good indicator of a successful project.

All projects have their specific challenges, and we have had ours as a team at the concept, planning, design, procurement, and construction. These challenges have been overcome, and most of the people present here along with their organisation's help have seen the project through to a successful outcome, and most important of all with relationships intact.

On behalf of IFCW we would like to thank our client (Partnering Directorate) for allowing IFCW to be inclusive in many aspects of the project, to the PAP and his team for allowing us to work closely to overcome any issues, to the design team and especially to Sch 2 2.2(a)(ii) for carrying this project through the design and construction period, and to the contractor who has been resilient and steadfast in their approach. Thank you to Leigh Crocker and his team for introducing his immense knowledge in many aspects of the project to help it to a successful conclusion.

We should also thank those who have contributed to the project who have moved on.

IFCW has learnt many lessons and will take those lessons on to improve our performance for future projects.

**PES** - Principal's Authorised Person - Sch 2 2.2(a)(ii)

My description of the project is a heavy engineering project conducted in a high-risk environment. That is, it is a massively reinforced concrete structure located in a creek with a propensity for flash flooding. It is a piece of civil infrastructure which is exceedingly difficult to repair, so the design and construction was carried out to achieve a nominal 100 year design life.

The wetlands were similarly high-risk because of construction in a creek, but were not technically challenging as the weir was.

I joined the project 10 April 2017 which was about 2 months after the contract was awarded.

Weather was extremely kind to the project with drought conditions persisting throughout the contract period. A number of rainfall events affected progress, but less than what might be expected in an "average" season.

It has been a pleasure to work with Guideline ACT Pty Ltd and its team. Similarly, the relationship between Professional Engineering Service Pty Ltd and the ACT Government in provision of PAP services (from my viewpoint) has been positive and fruitful. PAP relationships with SMEC and Alluvium have been cordial and effective.

High points and Issues for Improvement are documented later in this report. The opening statements did draw comment on an all parties difficulty with the Watermain relocation.

**SMEC** - Weir Designer - Sch 2 2.2(a)(ii)

The whole team should be proud.

Enjoyed the cooperative efforts of Client, PES, Guideline etc..

**Alluvium** - Wetlands design - Sch 2 2.2(a)(ii)

Noted initial design can't always be accurate.

Worked through issues constructively.



## Recap of planning made in Startup Workshop

A GC21 Startup Workshop was held followed by an Inception Meeting. The Startup Workshop provided planning for the monthly Evaluation and Monitoring meetings using the model GC21 Performance Evaluation template (with rating system running from 1: unsatisfactory to 5: excellent).

The contract objectives adopted for the construction contract implementation in the context of the GC21 Team Performance Evaluation process (GC21 model Attachment 2 plus several items relevant to roadworks in ACT:

| Criterion and Contract Clause Reference  | Concepts Guiding Measurement  |
|--|---|
| <p><b>Communication and Contract Relations</b></p> <p>3 co-operation between parties<br/>4 duty not to hinder performance<br/>5 early warning<br/>6 evaluation and monitoring<br/>13 – 20 compliance with ACT Government Requirements<br/>16 and Schedule 11: industrial relations management<br/>31 – 34 Subcontractor, Supplier and Consultant performance</p> | <p><i>Open, honest, transparent and timely communication at all levels (early warning).</i></p> <p><i>Solutions oriented Key is communications; sharing information</i></p> <p><i>Avoid surprises.</i></p> <p><i>Discuss first, confirm in writing. Context is relevant</i></p> <p><i>Timely response to an issue / reporting</i></p> <p><i>Avoiding repeats</i></p> <p><i>It isn't only when something is going wrong</i></p> <p><i>Effective Leadership including giving clear priorities when needed</i></p> <p><i>Enjoy working together. Celebrate successes</i></p>   |
| <p><b>Time</b></p> <p>25 time management<br/>54 extensions of time<br/>69 Completion by Contractual Completion Dates</p>   | <p><i>Contractor to plan program carefully and update regularly. (it belongs to Contractor)</i></p> <p><i>Achieve conforming initial program and updates</i></p> <p><i>Weekly/monthly site level assessment tracking site progress</i></p> <p><i>Planning and coordination to meet GC21 milestones</i></p> <p><i>Programming performance influences other elements. Eg</i></p> <p><i>SMEC construction certification</i></p> <p><i>Attention to community advice, briefing Minister;</i></p> <p><i>Environmental – for site inspection; seasonality of rainfall, temperature</i></p> <p><i>Managing WHS risks – Risk Register must be constantly reviewed and updated; Immediate reporting on WHS incidents</i></p> |
| <p><b>Cost</b></p> <p>52 Variations<br/>61 Prepayment<br/>63, 65 payments, final payment</p>   | <p><i>ACT want contractors to make reasonable profit, not lose money so they can do more jobs</i></p> <p><i>Contractor wants ACT to achieve Value for Money; look for innovations to reduce costs</i></p> <p><i>Each party looks to the interests of the other.</i></p> <p><i>Note less time → lower costs and other benefits such as traffic impact reduction</i></p> <p><i>Costing of changed elements</i></p> <p><i>Progress claims and payment agreed and on time</i></p>   |
| <p><b>Safety</b></p> <p>15 work health and safety management<br/>Schedule 10: Work health &amp; safety</p>   | <p><i>Note that the site is unforgiving</i></p> <p><i>Safety not just implementation – planning and proactive monitoring.</i></p> <p><i>Management of modified scope has safety being considered</i></p> <p><i>Keep all stakeholders informed of critical incidents.</i></p> <p><i>No cover ups: be honest</i></p> <p><i>Reports need to be properly researched and recorded. Being complete and accurate leads to improvement</i></p> <p><i>Culture of Safety is REAL. Do the workers believe?</i></p> <p><i>Treat everyone the same – all must comply</i></p> <p><i>13 week cycle for Active Certification Audits.</i></p>  |



| <b>Criterion and Contract Clause Reference</b>  | <b>Concepts Guiding Measurement</b>   |
|---|---|
| <p><b>Quality</b></p> <p>17 quality standards<br/>           42-45 Design requirements<br/>           43, 44, 48 fitness for purpose<br/>           46 innovation<br/>           50 Faults, Defects rectification<br/>           69 defect-free Completion<br/>           71 after Completion<br/>           Schedule 12: Quality Management Requirements</p> | <p><i>Avoid repeated nonconformances; many lots with NCR with repeat dispositions.</i></p> <p><i>Close out NCRs promptly.</i></p> <p><i>Practical application of specification and TECs.</i></p> <p><i>Experience of the team – in application of QA</i></p> <p><i>Effective RFI process</i></p> <p><i>Compliance with contractual requirements leading to Lot conformance – survey, testing, records</i></p> <p><i>SMEC verification process</i></p> <p><i>Discuss issues ahead of time</i></p> <p><i>Supervision of Subcontractors</i></p> <p><i>CAR response – avoid issues</i></p>  |
| <p><b>Claims and Issue Resolution</b></p> <p>Sched 5 Valuer<br/>           72 Claim resolution<br/>           73, 74 Issue resolution<br/>           75, Sched 6 Expert Determinations</p>  | <p><i>Resolve issues and claims early and at an appropriate level – initially at site with elevation to SE as needed.</i></p> <p><i>Fair and reasonable proposals and assessments</i></p> <p><i>Meeting the contractual information requirements</i></p> <p><i>Advice that a claim is coming</i></p> <p><i>Framework for recording and processing claims</i></p> <p><i>Notification under Clause 5 can lead to discussion and recording before change status is agreed.</i></p> <p><i>Timely resolution and closeout.</i></p>   |
| <p><b>Environment</b></p> <p>18, 29 energy &amp; water conservation, waste management, resource conservation, pollution reduction, protection of environment, healthy work environment</p> <p>Schedule 13: Environmental management</p>   | <p><i>Communication key to planning, getting adequate advice</i></p> <p><i>Allocate time for inspections and actions resulting from inspection</i></p> <p><i>Effective action on issues</i></p> <p><i>Take issues seriously → plan to deal with issues before they arise if possible; incorporate in Contractors work planning.</i></p> <p><i>Early action is most effective</i></p> <p><i>Controls need to change as the site changes</i></p> <p><i>Certifications required under CEMP</i></p>   |
| <p><b>Community / Stakeholder Relations</b></p>   | <p><i>Local residents are sensitive. Need to be notified of anything affecting them: (Communicate through Client).</i></p> <p><i>High level of Political interest; wish to get involved.</i></p> <p><i>Make communications part of the day-to-day processes, planning</i></p> <p><i>Avoidance of repeat complaints.</i></p> <p><i>Toolbox method for talking to community - anticipating the issues</i></p> <p><i>Communicate traffic planning</i></p> <p><i>Facilitate providing information for meetings with stakeholders</i></p> <p><i>Public perception of pond and wetlands and fauna management: informing community on reasons actions are being done.</i></p> <p><i>Interface with adjacent projects</i></p> |
| <p><b>Traffic</b></p>   | <p><i>Relationship with RoadsACT – manage TTMs</i></p> <p><i>Be mindful of approval lead time.</i></p> <p><i>Advising road users of coming restrictions / staging</i></p> <p><i>Advise RoadsACT early of running late; and of incidents</i></p> <p><i>Adequate provision for pedestrians and cyclists</i></p>   |

The Inception Meeting addressed the planning elements of a Preconstruction Meeting. It was particularly valuable on this project as it assisted GLA's comprehension of pre-commencement requirements on an ACT contract under GC21, building on the elements covered in the Startup Workshop.



## GC21 Concepts

The Facilitator revisited the GC21 general conditions provisions and elements applicable to relationship concepts. Tools used to define and monitor performance include the start up workshop and monthly monitoring of performance against the determined GC21 performance criteria. Key aspects of GC21 are early warning, co-operation in all matters, and duty to not hinder the performance of each party.

Contract references for the co-operation clauses are:

- Clauses 1 – 6 dealing with roles and relationships and guiding the application of the cooperation concept.
- In particular, Clause 6 – Evaluation and Monitoring
- Clause 32 – Start-up Workshop
- Clause 66 – Close-out Workshop.

## Issues and Opportunities

*(PT notes led discussion),*

### Positive points

- Communication between the PAP and CAP was particularly effective with a (as I perceive) joint commitment to “best-for-project” decision-making.
- Guideline demonstrated real ability to plan and build the project with genuine commitment to programming and quality processes.
- The temporary walls were a particularly effective means to building the weir widening.
- Guideline demonstrated honesty and fair-dealing in all matters of contractual variation.
- Effective communication between the designers and PAP (both Weir and Wetlands) allowed “Principal’s Representative”/PAP/CAP/designer interaction to solve design and construction problems relatively quickly.
- Consistency in the Principal’s team from start to finish helped communications and dealing with issues.
- The weir widening was an unusual and technically challenging structure. It has been satisfying both organisationally and personally to meet that challenge.
- MM: Getting expectations to the people doing the building was done well. Understanding why something was done communicated to the coal face. NT noted that people on the job don’t have as strong a background in (specialist) understanding.
- Acknowledged that the contractor is responsible for all work: Can’t assign to QA subcontractors.

### Comment on Neutral Issues for the project:

- Specifications are difficult to use in the way they are set out. Some difficult to read with references needing to be resolved between plans, standard ACT specifications, the Technical Exemption Clauses, and numerous standards. It is understandable to have a level of complexity because a weir widening is well outside of business-as-usual, but the level of integration could be improved.

The setout is different to other States’ models.

The Construction Report is a large requirement but well specified.

### Issues for improvement - for project:

- Watermain work was added as a Variation Order and caused huge issues.
  - Contractors should deal with bodies such as Icon Water directly. Involving the PAP as a mandated go-between indicates a misunderstanding of the role of PAP on the part of the service authorities. PAP is part of the Principal’s team and subject to direction by the



- Principal (in contrast to the Superintendent under AS2124-type contracts). Involving the PAP in this way creates the possibility of Principal-induced delays to the contractor.
- The water main has absorbed inordinate amounts of time from all parties for many different reasons. I suggest a specialised contractor or sub-contractor dealing directly with Icon Water would have been more effective.
  - MM: agrees with aim to seek to make this sort of work the responsibility of others, as early works (like the Gas Main) or excised from the site.
  - [Redacted] Shouldn't define the project because of difficulties like this. The issue is the responsibility of the project and could have been managed better. It received less attention as priority appeared less than other project elements. Poor design is only an excuse. Professional management should cope.
- [Redacted] suggested the extensive Quality Control process undertaken by the Operational Acceptance (et. al) team is inconsistent with the Quality Assurances processes inherent to the GC21-based (or AS2124 if that is used) contract. I suggest these post-construction quality control processes be abandoned, or at least very explicitly specified and costed if they must persist.
    - [Redacted] It is important to know that the Validation Requirements are incorporated in the contract and need to be managed under the Quality System.
    - [Redacted] Certification is more difficult than it needs to be
  - [Redacted] observed that the presence of the Principal's Senior Executive on-site every (say) 2 months would be a helpful means of providing an informal channel to communicate any issues that could be "headed-off" before they become critical. This project was not in great need of this due to effective on-site communications and sustained good will.
  - [Redacted] and [Redacted] gave opinion that the Completion Amount under the GC21 should not be used with it being an unnecessary imposition on contractors where bank undertakings are already in place to guarantee performance.

#### Issues for improvement – general:

- [Redacted] suggested that the quality specification within ACT contract documentation is not specific enough and relies too heavily on the AS/NZ/ISO quality standards. He suggested adoption of the NSW Roads and Marine Services or the Qld Transport and Main Roads' quality standards (and a move to their new standards as those organisations invest to develop updated standards).
- [Redacted] observation, supported by [Redacted] that payment should be explicitly linked to passed lots under the quality system. While this takes additional administrative effort it is well worthwhile and is the only thing that effectively drives real improvement in quality systems. Implementation of this would need to be strongly up-front in tender briefings etc.

#### GC21 Performance Evaluation meetings

[Redacted] - GC21 requires that the performance of the team is tracked and reviewed.

[Redacted] - Provided record of the scoring at each meeting.

This meeting discussed the final trends observed and provided comment on performance within each performance measure.

#### Evaluation & Monitoring learnings

*discussing trends, success factors, difficulties*

The performance evaluation and monitoring process outlined in GC21 and as planned at Startup was applied in regular meetings. [Redacted] provided detail of the scoring through the series of evaluation and monitoring meetings for the project and the trend of results was discussed.

The scoring sheet prepared for each evaluation and monitoring meeting provides justifications for results – whether scored high or low.

Appendix 2 shows a summary of the project's Evaluation Meeting Scoring and trend graphs for each measure.



It was reiterated that scoring at evaluation meetings is intended to be subjective showing how the project is performing from each individual's point of view. The result of this is that a poor score reflecting the pressure one (+) person is under in a measure field is not necessarily suffered by other team participants. An issue discovered within a month tends to draw a score down reducing the average on the indicator measure. The meeting gives the opportunity to discuss and share each individual's impressions. Issues were always dealt with promptly.

The GC21 process of cooperation and has been demonstrated by the responses following each meeting: while there is a generally level trend, with positive scores. Any drops were addressed promptly.

|  |   |
|--|---|
| <b>Communications and Contract Relations</b> | The project benefitted from enthusiastic and consistent interaction throughout: the parties being committed to work cooperatively and communicate effectively.  |
| <b>Time</b>                                  | Well managed by GLA: with strong progress forecasting and GLA working to that. Programs were genuine and compliant.<br><br>NT kept a Risk Register which showed 6-7 weeks behind at one stage. Time was recovered by applying an innovative approach with thoughtful solutions.<br><br>An example was the Client looking at some spec requirements and asking if they were necessary with a practical approach with some changes applied.<br><br>NT: The acceptance to change the construction period from the original RFT was commendable.<br><br>Wetlands progress has been slower than desired due to priority being given to the Weir: could have been better. |
| <b>Cost</b>                                  | Client side: Unanticipated large increase due to steel costs. Quantity estimate was inaccurate and its discovery should have been earlier: IFCW briefs for items like estimating steel quantities could be tightened.<br><br>Variations: GLA claims were fair and reasonable. Client dealt fairly with GLA and the job didn't have excessive changes required.  |
| <b>Quality</b>                               | QA requires focus on Checklists. The approach is doing things right rather than putting things right. Ie need to effectively manage the process. Planning was good.<br><br>Attention to Validation Requirements was familiar and applied.   |
| <b>Safety</b>                                | Active Certification Process drove close scrutiny and all had favourable results. (Michael Whitehouse)<br><br>There were 2 Prohibition Notices. NT was able to negotiate to mitigate effect.<br><br>When visiting site the Client observes safety was always paramount. The site was always neat and tidy and this improves the attitude to safety.   |
| <b>Claims and Issue Resolution</b>           | Were always resolved early in a well planned process with quick communications between all parties:   |
| <b>Environment</b>                           | In ACT environmental performance is closely scrutinised.<br><br>The project built early trust with the EPA.   |
| <b>Community / Stakeholder Relations</b>     | Appropriate effort (good communications) was put in up front.<br><br>Appropriate planning to keep material movements within the site helped.<br><br>GLA were effective and IFCW gave solid support.   |
| <b>Traffic</b>                               | Site was not particularly challenging for traffic as there was little on road impact apart from accesses and signage – both well done.<br><br>Management of cycle interface was effective.  |



## NEW CONCERNS, SOLUTIONS and INNOVATIONS

The issues were identified in the opening statements and other detailed comments above.

### Closing statements

- Benefits of the Workshop
- Aspirations for the project

**ACT TCCS-LRI** - Senior Program Manager. Client's Representative - Michael McGrath

Isabella Weir and Wetlands Project is a complex project delivered using GC21 in the way intended.

All who worked on the project should be proud to have on their work history.

**IFCW** - Procurement Officer - Nick Taylor

A point of difference has been established on this project – going the extra mile.

Demonstrated advantages of good communications.

**PES** - Principal's Authorised Person - Sch 2 2.2(a)(ii)

Offered construction proverbs:

- Not to look for perfection, just excellence.
- Contractor's approach is always to solve the next problem.
- Many persons were involved deeply. Applause goes to those in the work arena: Guideline.

**Guideline ACT** – Contractor's Authorised Person Sch 2 2.2(a)(ii)

Had 8 months on site and learned a lot.

Enjoyed the experience.

On communications. Sometimes it isn't easy but the job is done.

**IFCW Civil - Senior Procurement Officer** - Simon Weber

The whole team worked hard. Many issues were resolved

GLA success has demonstrated that such complicated and challenging work can be contracted effectively.

GLA has proved their capability to take on complex jobs.

**Alluvium** - Wetlands design - Sch 2 2.2(a)(ii)

This job is different in scope to most.

Came to the project late in its development and able to introduce design innovations.

**Minutes/ Prepared by :**

**Facilitator** - Sch 2 2.2(a)(ii)

Minutes Closeout Workshop 30 October 2018

Dated 6 and 9 November 2018





APPENDIX 1: GC21 Closeout Workshop Attendance Sheet

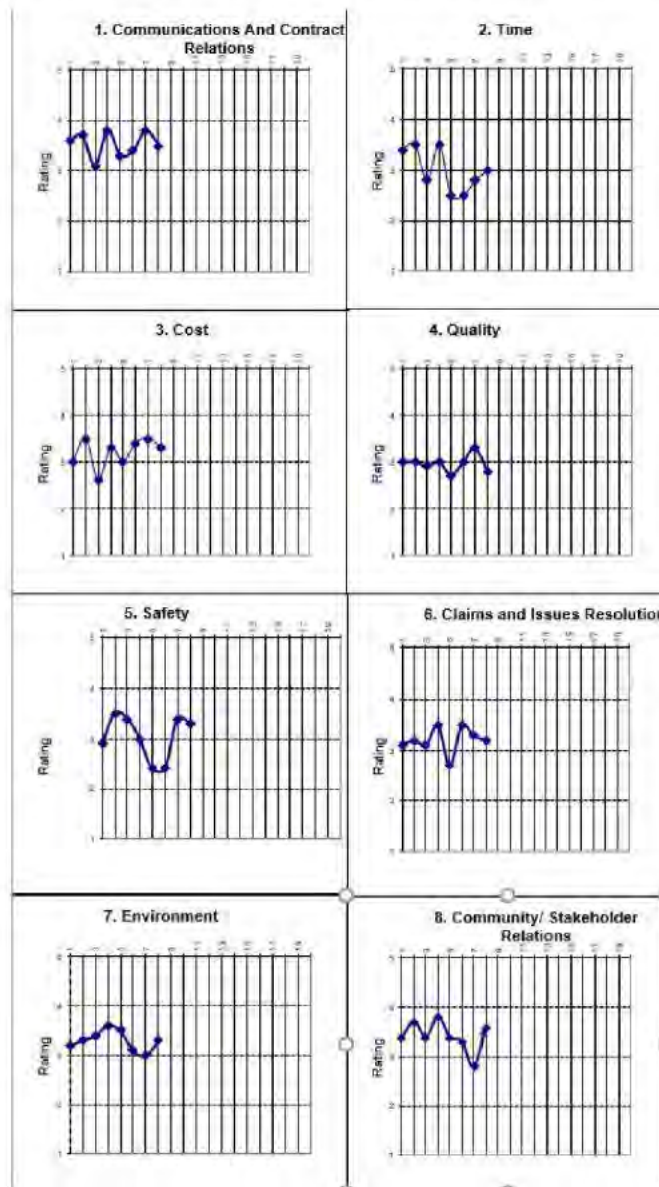
IWW Closeout

| Name             | Organisation                  | Contact          |
|------------------|-------------------------------|------------------|
| Sch 2 2.2(a)(ii) | GLA<br>Guideline Act P/L      | Sch 2 2.2(a)(ii) |
| SIMON WEBBER     | IFCW CIVIL                    |                  |
| Sch 2 2.2(a)(ii) | ALLOUION<br>SMEC              |                  |
| Stuart Oxborrow  | TCCS-LR1                      |                  |
| MICHAEL M'GRATH  | TCCS-LR1                      |                  |
| MICHAEL SERG.    | TCCS LR1                      |                  |
| Andrew Robinson  | IFCW                          |                  |
| NICK TAYLOR      | IFCW                          |                  |
| Sch 2 2.2(a)(ii) | PES<br>PES                    |                  |
| Sch 2 2.2(a)(ii) | PES<br>EnviroLinks<br>Design. |                  |



**APPENDIX 2: GC21 Evaluation Meeting Scoring Summary:**

| Meeting | 1. Communications And Contract Relations | 2. Time | 3. Cost | 4. Quality | 5. Safety | 6. Claims and Issues Resolution | 7. Environment | 8. Community/ Stakeholder Relations | 9. Traffic |          |
|---------|--|---------|---------|------------|-----------|---------------------------------|----------------|-------------------------------------|------------|----------|
| 1       | 3.6                                      | 3.4     | 3.0     | 3.0        | 2.9       | 3.1                             | 3.2            | 3.4                                 | 3.0        | 15-05-17 |
| 2       | 3.7                                      | 3.5     | 3.5     | 3.0        | 3.5       | 3.2                             | 3.3            | 3.7                                 | 3.3        | 26-06-17 |
| 3       | 3.1                                      | 2.8     | 2.6     | 2.9        | 3.4       | 3.1                             | 3.4            | 3.4                                 | 3.3        | 07-08-17 |
| 4       | 3.8                                      | 3.5     | 3.3     | 3.0        | 3.0       | 3.5                             | 3.6            | 3.8                                 | 3.8        | 18-09-17 |
| 5       | 3.3                                      | 2.5     | 3.0     | 2.7        | 2.4       | 2.7                             | 3.5            | 3.4                                 | 3.0        | 05-03-08 |
| 6       | 3.4                                      | 2.5     | 3.4     | 3.0        | 2.4       | 3.5                             | 3.1            | 3.3                                 | 3.6        | 17-04-18 |
| 7       | 3.8                                      | 2.8     | 3.5     | 3.3        | 3.4       | 3.3                             | 3.0            | 2.8                                 | 2.9        | 12-06-18 |
| 8       | 3.5                                      | 3.0     | 3.3     | 2.8        | 3.3       | 3.2                             | 3.3            | 3.6                                 | 3.2        | 09-07-19 |



**From:** 'Sch 2 2.2(a)(ii)' [redacted]@pes.net.au>  
**Sent:** 14/11/2018 5:08 PM  
**To:** "'Sch 2 2.2(a)(ii)' [redacted]@guidelineact.com.au>  
**Cc:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Sch 2 2.2(a)(ii)" [redacted]@pes.net.au>  
**Subject:** RE: ISABELLA POND WETLANDS OA outstanding information [SEC=UNCLASSIFIED]  
**Attachments:** Parties to the Project Ver 1.docx, REF11 ISABELLA POND WAE LANDSCAPE SUMMARY PLAN.dwg, REF11 ISABELLA POND WAE CIVIL SUMMARY PLAN.dwg

Hi [redacted]

As discussed this morning, I need your assistance if you can please provide the documents listed below (my comments in red texts) from Anthonie's email.

- Rectified "Parties to the Project" document. – *The document was submitted and I have located it. Please confirm the attached copy is the latest.*
- Rectified Civil & Landscape WAE Summary Drawings. – *The documents were submitted and I have attached copies for you to confirm that the files are current and the latest.*
- Rectified Asset Description Forms. – *I have received an excel file from you. I understand that it is the latest Asset Form. Please confirm.*
- As-built survey of the wetlands from a Registered Surveyor. – *I understand that Anthonie expects to see the actual pond levels and actual contour levels. The WAE drawings provided by you shows contour RLs that are as same level as the design drawings. Please provide ground survey reports for the wetlands. Please also provide if you have any other survey reports for the Wetlands. Can you also please provide the as-built at the top of the stop-log panel/wall or the level at the top of the slot/cut out? If you have pre-pour survey pick up of the wall including stop-log cut out to confirm the level then it should suffice.*
- Certification of the works, which include the wetland retaining walls. – *I will update the copy that [redacted] sent earlier to the TCCS.*
- Evidence that defects have been rectified. – *I have received two defects rectification notices. However we noted 7 defects. Can you please provide evidence or any photos of rectification of other 5 defects?*

Please contact me if you have queries.

Regards

[redacted]  
 Principal's Authorised Person (PAP)  
 Professional Engineering Service Pty Limited ACN 057 633 897  
 Mobile - [redacted]




---

**From:** Lambert, Anthonie <Anthonie.Lambert@act.gov.au>  
**Sent:** Monday, 12 November 2018 2:27 PM  
**To:** [redacted]@pes.net.au  
**Cc:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>; Bell, Jeff <Jeff.Bell@act.gov.au>; Joseph, Gabriel <Gabriel.Joseph@act.gov.au>; Dunn, Maggie <Maggie.Dunn@act.gov.au>  
**Subject:** ISABELLA POND WETLANDS OA outstanding information [SEC=UNCLASSIFIED]

Hi 

Just an email to let you know that the following information is still outstanding as per the attached emails. Can you please submit the outstanding information via ProjectWise at your earliest convenience.

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- Rectified Asset Description Forms.
- As-built survey of the wetlands from a Registered Surveyor.
- Certification of the works, which include the wetland retaining walls.
- Evidence that defects have been rectified.

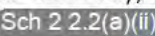
Regards

Anthonie Lambert

---

**From:** Dunn, Maggie

**Sent:** Thursday, 8 November 2018 10:21 AM

**To:** @pes.net.au

**Cc:** Lambert, Anthonie <[Anthonie.Lambert@act.gov.au](mailto:Anthonie.Lambert@act.gov.au)>; TCCS\_PC POSTDA <[TCCS.POSTDA@act.gov.au](mailto:TCCS.POSTDA@act.gov.au)>

**Subject:** ISABELLA PONDS WETLANDS - WEIR [SEC=UNCLASSIFIED]

Good morning,

Formal acknowledgment of receipt of PES P/L resubmission for operational acceptance attached.

#### [5.1.2 - 2ND SUBMISSION COMMENTS ADDRESSED](#)

Regards,

Maggie Dunn | Operational Coordinator | Place Coordination

Place Coordination and Planning | Transport Canberra and City Services | ACT Government

Phone: 02 6205 8261 | Email: [maggie.dunn@act.gov.au](mailto:maggie.dunn@act.gov.au)

490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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## Parties to the Project

### Applicant / developer

This project is an infrastructure project initiated by the Australian Capital Territory Government funded by the ACT Government. Transport Canberra and City Services are administering a GC21 contract it established in February 2017. The staff who established the contract were working in a different section of the ACT Government (Civil Infrastructure Delivery | Infrastructure Finance and Capital Works | Chief Minister, Treasury and Economic Development Directorate | ACT Government) which has recently become part of TCCS. Professional Engineering Service Pty Ltd (PES) was appointed by the ACT Government to act on its behalf as the Principal Approved Person under the GC21 General Conditions of Contract. Contractually, PES is part of the ACT Government's staff.

Guideline ACT Pty Ltd were contracted by the ACT Government to carry out the works. Guideline have been responsible for this application for Operational Acceptance, although the Principal Approved Person is the single contact person.

**The Applicant/Developer is Guideline ACT Pty Ltd with Principal Approved Person [Sch 2 2.2\(a\)\(ii\)](#) ([Sch 2 2.2\(a\)\(ii\)](#)) as the contact person.**

### Agent

[Sch 2 2.2\(a\)\(ii\)](#)). Principal Approved Person under the contract to construct the Isabella Pond Wetlands. [Sch 2 2.2\(a\)\(ii\)](#) is an Agent of the ACT Government and contact person for this application. (To be clear, [Sch 2 2.2\(a\)\(ii\)](#) cannot be an Agent of Guideline ACT Pty Ltd because he is an agent of the ACT Government. To be an Agent of both would seriously violate probity.)

### Consultants

**Works relevant to this application were designed by Alluvium Consulting Australia Pty Ltd.** Alluvium utilized **Sellick Consultants** Pty Ltd as a sub-consultant for structural design.

(Soft landscape works were designed by Enviro Links Design Pty Ltd as a subconsultant to Alluvium Consulting, but these works are not relevant to this Operation Acceptance application. Similarly, the weir upgrade works were designed by SMEC Pty Ltd, but this is not relevant to this Operational Acceptance application.)

The Principal Approved Person role under the GC21 contract was contracted to Professional Engineering Services Pty Ltd.

The civil engineering works were contracted to Guideline ACT Pty Ltd. Guideline carried out the civil works with its own resources. Concrete was sourced from Hanson Pty Ltd, Blocks for the retaining walls were sourced from Monier's factory at Mittagong.

## Project Details

The Project's title is:

**"Isabella Weir Upgrade Construction and Wetland / Water Quality Improvement Construction Works"**

**The scope of this application is the Isabella Pond wetlands civil works.** (The scope of the larger project includes upgrade of the Isabella Weir and soft landscape works for both the wetlands and the weir.)

**A site plan is attached.**

**From:** "Sch 2 2.2(a)(ii) [redacted]@guidelineact.com.au"  
**Sent:** 14/11/2018 9:48 PM  
**To:** "Sch 2 2.2(a)(ii) [redacted]@pes.net.au"  
**Cc:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Sch 2 2.2(a)(ii) [redacted]@pes.net.au"  
**Subject:** RE: ISABELLA POND WETLANDS OA outstanding information [SEC=UNCLASSIFIED]  
**Attachments:** REF11 ISABELLA POND WAE LANDSCAPE SUMMARY PLAN.DWG, REF11 ISABELLA POND WAE CIVIL SUMMARY PLAN.DWG, FSL SURVEY NORTH WETLANDS.pdf, FSL SURVEY SOUTH WETLANDS.pdf

Hi [redacted]

The WAE drawings have incorporated the DWG files attached.

The WAE drawings are located here:

[https://www.dropbox.com/sh/trew5araunpdrkq/AADdxK5RUz\\_kJuonP6ND0mrWa?dl=0](https://www.dropbox.com/sh/trew5araunpdrkq/AADdxK5RUz_kJuonP6ND0mrWa?dl=0)

The survey reports are also attached for your reference.

Kind regards [redacted].

**Sch 2 2.2(a)(ii) | Project Manager | Isabella Weir Upgrade**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [redacted]@guidelineact.com.au

M: [redacted] | T: [redacted]




---

**From:** [redacted]@pes.net.au]  
**Sent:** Thursday, 15 November 2018 8:05 AM  
**To:** [redacted]  
**Cc:** 'Oxborrow, Stuart'; 'Taylor, Nick'; 'Glenn Lacey'  
**Subject:** RE: ISABELLA POND WETLANDS OA outstanding information [SEC=UNCLASSIFIED]

Hi [redacted]

As discussed, I have checked the email dated 18 Oct 2018. See attached email dated 18 Oct 2018. I cannot find the file for as-built survey reports for the wetland from your surveyor. Can you please forward the survey report and the file? Can you please also provide the information for stop log as per my earlier email?

Regards

[redacted]

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile - [redacted]



**From:** Sch 2 2.2(a)(ii) @pes.net.au  
**Sent:** Wednesday, 14 November 2018 5:09 PM  
**To:** Sch 2 2.2(a)(ii) @guidelineact.com.au  
**Cc:** 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>; 'Taylor, Nick' <Nick.Taylor@act.gov.au>; Sch 2 2.2(a)(ii) @pes.net.au  
**Subject:** RE: ISABELLA POND WETLANDS OA outstanding information [SEC=UNCLASSIFIED]

Hi Sch 2 2.2(a)(ii)

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Please contact me if you have queries.

Regards

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile - Sch 2 2.2(a)(ii)



**From:** Lambert, Anthonie <Anthonie.Lambert@act.gov.au>  
**Sent:** Monday, 12 November 2018 2:27 PM  
**To:** Sch 2 2.2(a)(ii) @pes.net.au  
**Cc:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>; Bell, Jeff <Jeff.Bell@act.gov.au>; Joseph, Gabriel <Gabriel.Joseph@act.gov.au>; Dunn, Maggie <Maggie.Dunn@act.gov.au>  
**Subject:** ISABELLA POND WETLANDS OA outstanding information [SEC=UNCLASSIFIED]

Hi Sch 2 2.2(a)(ii)



Just an email to let you know that the following information is still outstanding as per the attached emails. Can you please submit the outstanding information via ProjectWise at your earliest convenience.

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- Rectified Asset Description Forms.
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- Evidence that defects have been rectified.

Regards

Anthonie Lambert

---

**From:** Dunn, Maggie

**Sent:** Thursday, 8 November 2018 10:21 AM

**To:** [REDACTED]@pes.net.au

**Cc:** Lambert, Anthonie <Anthonie.Lambert@act.gov.au>; TCCS\_PC POSTDA <TCCS.POSTDA@act.gov.au>

**Subject:** ISABELLA PONDS WETLANDS - WEIR [SEC=UNCLASSIFIED]

Good morning,

Formal acknowledgment of receipt of PES P/L resubmission for operational acceptance attached.

#### [5.1.2 - 2ND SUBMISSION COMMENTS ADDRESSED](#)

Regards,

Maggie Dunn | Operational Coordinator | Place Coordination

Place Coordination and Planning | Transport Canberra and City Services | ACT Government

Phone: 02 6205 8261 | Email: maggie.dunn@act.gov.au

490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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---

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NORTH WETLANDS TOPSOIL CONFORMANCE

=====

12D MODEL - SURVEY CONFORMANCE REPORT: PAVEMENT  
 File: NORTH WETLANDS TOPSOIL CONFORMANCE.rpt  
 Page: 1

-----

Original Survey File : COMBINED GL TOPSOIL DATA  
 Lot Number :  
 Lot Location : NORTH WETLANDS  
 Lot Description : TOPSOIL CONFORMANCE

Project : aerial survey sept 2018  
 Control String : "DESIGN FROM ALLUVIUM RECEIVED MARCH 25 DES  
 RETAININGWALLALIGNMENT->DES RETAININGWALLALIGNMENT"  
 Design Pavement Tin : "WETLANDS NORTH FL MAY18"

Depth From Design : 0 (vertical)

Tolerances Measured : vertical  
 Upper Tolerance : 0.050  
 Lower Tolerance : -0.050

| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|------------|----------------|--------------|-------------|--------------|-------------------|
|            | 3.502          | -15.283      | 574.947     | 574.981      | -0.034            |
|            | 4.674          | -7.696       | 574.876     | 574.918      | -0.042            |
| 0.114)     | 1.582          | -0.578       | 575.221     | 575.058      | 0.164 > 0.050 (   |
| (-0.012)   | 8.125          | -0.106       | 575.068     | 575.130      | -0.062 < -0.050   |
|            | 19.371         | -13.666      | 574.719     | 574.751      | -0.032            |
|            | 20.256         | -6.982       | 574.500     | 574.536      | -0.037            |
|            | 15.851         | -5.260       | 574.650     | 574.630      | 0.020             |
|            | 20.697         | -0.192       | 575.094     | 575.130      | -0.036            |
|            | 25.165         | -19.447      | 574.885     | 574.924      | -0.038            |
|            | 26.251         | -14.869      | 574.540     | 574.565      | -0.024            |
|            | 27.919         | -6.372       | 574.370     | 574.400      | -0.029            |
| (-0.023)   | 28.657         | -0.322       | 575.057     | 575.130      | -0.073 < -0.050   |
|            | 33.002         | -21.154      | 574.805     | 574.854      | -0.049            |
| 0.008)     | 33.238         | -15.058      | 574.435     | 574.377      | 0.058 > 0.050 (   |
|            | 31.832         | -9.021       | 574.260     | 574.308      | -0.048            |
|            | 33.178         | -1.934       | 574.899     | 574.883      | 0.016             |
|            | 42.299         | -26.158      | 575.217     | 575.254      | -0.037            |
|            | 41.455         | -19.395      | 574.720     | 574.704      | 0.016             |
| (-0.006)   | 41.421         | -15.728      | 574.255     | 574.311      | -0.056 < -0.050   |
|            | 40.212         | -6.859       | 574.044     | 574.008      | 0.036             |
|            | 39.849         | -1.452       | 574.952     | 574.989      | -0.037            |
|            | 48.911         | -25.488      | 575.171     | 575.198      | -0.027            |
|            | 48.911         | -18.900      | 574.673     | 574.677      | -0.004            |
|            | 48.248         | -15.157      | 574.150     | 574.187      | -0.037            |
|            | 47.225         | -5.277       | 574.324     | 574.363      | -0.039            |
|            | 46.800         | -1.844       | 574.888     | 574.894      | -0.007            |
|            | 51.892         | -25.367      | 575.172     | 575.148      | 0.024             |
|            | 52.046         | -17.824      | 574.529     | 574.538      | -0.009            |
|            | 52.182         | -15.476      | 574.154     | 574.183      | -0.029            |
|            | 53.571         | -5.405       | 574.299     | 574.344      | -0.046            |

| NORTH WETLANDS TOPSOIL CONFORMANCE |         |         |         |        |          |
|------------------------------------|---------|---------|---------|--------|----------|
| 53.502                             | -1.729  | 574.903 | 574.908 | -0.006 |          |
| 53.053                             | -0.469  | 575.085 | 575.130 | -0.045 |          |
| 58.777                             | -24.826 | 575.075 | 575.083 | -0.008 |          |
| 58.783                             | -17.101 | 574.398 | 574.408 | -0.009 |          |
| 61.954                             | -3.921  | 574.494 | 574.517 | -0.023 |          |
| 62.295                             | -0.745  | 575.021 | 575.084 | -0.063 | < -0.050 |

(-0.013)

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|------------|----------------|--------------|-------------|--------------|-------------------|
|            | 68.473         | -24.916      | 575.043     | 575.057      | -0.014            |
|            | 67.861         | -21.041      | 574.639     | 574.787      | -0.148 < -0.050   |
| (-0.098)   |                |              |             |              |                   |
|            | 65.775         | -16.036      | 574.250     | 574.257      | -0.007            |
|            | 69.630         | -11.324      | 574.227     | 574.280      | -0.053 < -0.050   |
| (-0.003)   |                |              |             |              |                   |
|            | 68.508         | -5.455       | 574.375     | 574.357      | 0.018             |
|            | 74.807         | -14.366      | 574.377     | 574.428      | -0.051 < -0.050   |
| (-0.001)   |                |              |             |              |                   |
|            | 73.995         | -7.729       | 574.376     | 574.382      | -0.007            |
|            | 73.863         | -0.683       | 575.074     | 575.119      | -0.045            |
|            | 79.419         | -21.251      | 574.798     | 574.820      | -0.022            |
|            | 79.419         | -14.903      | 574.417     | 574.480      | -0.063 < -0.050   |
| (-0.013)   |                |              |             |              |                   |
|            | 79.419         | -8.112       | 574.445     | 574.480      | -0.035            |
|            | 79.432         | -2.525       | 574.744     | 574.725      | 0.019             |
|            | 79.616         | -0.385       | 575.126     | 575.130      | -0.004            |
|            | 86.257         | -20.597      | 574.695     | 574.747      | -0.052 < -0.050   |
| (-0.002)   |                |              |             |              |                   |
|            | 85.577         | -13.418      | 574.484     | 574.480      | 0.004             |
|            | 85.523         | -7.662       | 574.472     | 574.480      | -0.008            |
|            | 85.965         | -0.673       | 575.093     | 575.102      | -0.009            |
|            | 93.768         | -22.636      | 574.806     | 574.861      | -0.055 < -0.050   |
| (-0.005)   |                |              |             |              |                   |
|            | 93.202         | -15.553      | 574.564     | 574.599      | -0.035            |
|            | 92.282         | -8.891       | 574.478     | 574.536      | -0.058 < -0.050   |
| (-0.008)   |                |              |             |              |                   |
|            | 91.854         | -2.414       | 574.801     | 574.750      | 0.051 > 0.050 (   |
| 0.001)     |                |              |             |              |                   |
|            | 91.655         | -0.352       | 575.095     | 575.130      | -0.035            |
|            | 98.712         | -22.240      | 574.870     | 574.896      | -0.026            |
|            | 98.096         | -16.117      | 574.588     | 574.630      | -0.042            |
|            | 98.441         | -9.251       | 574.522     | 574.596      | -0.075 < -0.050   |
| (-0.025)   |                |              |             |              |                   |
|            | 97.788         | -2.700       | 574.765     | 574.690      | 0.074 > 0.050 (   |
| 0.024)     |                |              |             |              |                   |
|            | 97.781         | -0.285       | 575.099     | 575.130      | -0.031            |
|            | 105.134        | -20.970      | 574.840     | 574.917      | -0.077 < -0.050   |
| (-0.027)   |                |              |             |              |                   |
|            | 109.257        | -20.856      | 574.951     | 574.895      | 0.056 > 0.050 (   |
| 0.006)     |                |              |             |              |                   |
|            | 104.698        | -14.726      | 574.640     | 574.630      | 0.010             |
|            | 104.865        | -8.070       | 574.601     | 574.617      | -0.016            |
|            | 104.894        | -2.450       | 574.747     | 574.744      | 0.003             |
|            | 104.896        | -0.409       | 575.085     | 575.130      | -0.045            |

## NORTH WETLANDS TOPSOIL CONFORMANCE

|          |         |         |         |         |        |           |
|----------|---------|---------|---------|---------|--------|-----------|
|          | 109.840 | -16.389 | 574.653 | 574.624 | 0.029  |           |
|          | 110.465 | -10.001 | 574.494 | 574.557 | -0.062 | < -0.050  |
| (-0.012) |         |         |         |         |        |           |
|          | 111.453 | -3.181  | 574.684 | 574.630 | 0.054  | > 0.050 ( |
| 0.004)   |         |         |         |         |        |           |
|          | 111.566 | -0.846  | 575.070 | 575.067 | 0.003  |           |
|          | 116.213 | -20.802 | 574.770 | 574.772 | -0.002 |           |
|          | 116.669 | -14.495 | 574.522 | 574.507 | 0.015  |           |
|          | 117.291 | -8.126  | 574.481 | 574.533 | -0.052 | < -0.050  |
| (-0.002) |         |         |         |         |        |           |
|          | 117.769 | -2.798  | 574.756 | 574.691 | 0.066  | > 0.050 ( |
| 0.016)   |         |         |         |         |        |           |
|          | 118.394 | -0.657  | 575.154 | 575.125 | 0.029  |           |
|          | 125.103 | -21.021 | 574.666 | 574.704 | -0.038 |           |
|          | 125.270 | -15.726 | 574.526 | 574.480 | 0.046  |           |
|          | 125.277 | -9.345  | 574.432 | 574.480 | -0.048 |           |
|          | 125.227 | -3.184  | 574.658 | 574.607 | 0.051  | > 0.050 ( |
| 0.001)   |         |         |         |         |        |           |
|          | 125.143 | -0.623  | 575.137 | 575.106 | 0.031  |           |

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |          |
|------------|----------------|--------------|-------------|--------------|-------------------|----------|
|            | 132.682        | -21.803      | 574.651     | 574.666      | -0.015            |          |
|            | 132.163        | -14.941      | 574.436     | 574.424      | 0.012             |          |
|            | 131.664        | -8.514       | 574.404     | 574.386      | 0.017             |          |
|            | 131.161        | -3.966       | 574.533     | 574.513      | 0.020             |          |
|            | 130.966        | -0.557       | 575.151     | 575.125      | 0.027             |          |
|            | 136.639        | -22.913      | 574.711     | 574.734      | -0.023            |          |
|            | 136.967        | -16.887      | 574.321     | 574.359      | -0.038            |          |
|            | 137.239        | -10.612      | 574.315     | 574.313      | 0.002             |          |
|            | 137.165        | -3.614       | 574.502     | 574.560      | -0.059            | < -0.050 |
| (-0.009)   |                |              |             |              |                   |          |
|            | 137.117        | -0.644       | 575.052     | 575.113      | -0.061            | < -0.050 |
| (-0.011)   |                |              |             |              |                   |          |
|            | 144.605        | -22.976      | 574.656     | 574.697      | -0.041            |          |
|            | 145.293        | -19.839      | 574.246     | 574.295      | -0.049            |          |
|            | 142.978        | -6.922       | 574.296     | 574.325      | -0.029            |          |
|            | 141.981        | -0.713       | 575.092     | 575.102      | -0.010            |          |
|            | 152.071        | -23.558      | 574.611     | 574.657      | -0.046            |          |
|            | 151.908        | -20.552      | 574.257     | 574.289      | -0.032            |          |
|            | 147.932        | -5.805       | 574.278     | 574.289      | -0.011            |          |
|            | 147.184        | -0.549       | 575.101     | 575.130      | -0.029            |          |
|            | 159.032        | -24.332      | 574.792     | 574.801      | -0.009            |          |
|            | 159.040        | -20.372      | 574.304     | 574.363      | -0.059            | < -0.050 |
| (-0.009)   |                |              |             |              |                   |          |
|            | 154.375        | -5.367       | 574.289     | 574.339      | -0.050            |          |
|            | 154.167        | -0.339       | 575.128     | 575.130      | -0.002            |          |
|            | 164.919        | -26.380      | 574.820     | 574.855      | -0.034            |          |
|            | 160.938        | -5.621       | 574.314     | 574.307      | 0.007             |          |
|            | 161.089        | -0.408       | 575.160     | 575.130      | 0.030             |          |
|            | 166.940        | -21.348      | 574.298     | 574.335      | -0.036            |          |
|            | 168.178        | -6.360       | 574.319     | 574.286      | 0.033             |          |
|            | 168.171        | -0.377       | 575.159     | 575.130      | 0.029             |          |

## NORTH WETLANDS TOPSOIL CONFORMANCE

|         |         |         |         |        |
|---------|---------|---------|---------|--------|
| 177.009 | -28.738 | 574.811 | 574.834 | -0.024 |
| 173.312 | -28.241 | 574.797 | 574.840 | -0.042 |
| 172.565 | -21.739 | 574.307 | 574.305 | 0.002  |
| 176.310 | -19.073 | 574.244 | 574.284 | -0.041 |
| 177.177 | -13.361 | 574.241 | 574.285 | -0.043 |
| 174.143 | -8.631  | 574.246 | 574.294 | -0.048 |
| 180.239 | -27.300 | 574.735 | 574.713 | 0.022  |
| 181.136 | -19.158 | 574.382 | 574.364 | 0.018  |
| 184.391 | -10.005 | 574.379 | 574.367 | 0.012  |
| 184.294 | -5.762  | 574.450 | 574.444 | 0.006  |
| 184.341 | -0.813  | 575.047 | 575.059 | -0.013 |
| 189.789 | -27.963 | 574.743 | 574.719 | 0.024  |
| 190.682 | -19.532 | 574.477 | 574.480 | -0.003 |
| 192.695 | -9.633  | 574.454 | 574.480 | -0.026 |
| 193.455 | -5.561  | 574.513 | 574.477 | 0.036  |
| 193.130 | -0.542  | 575.151 | 575.124 | 0.027  |
| 196.301 | -29.486 | 574.706 | 574.713 | -0.007 |
| 197.826 | -19.167 | 574.517 | 574.480 | 0.037  |
| 200.720 | -9.979  | 574.469 | 574.480 | -0.011 |

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|------------|----------------|--------------|-------------|--------------|-------------------|
|            | 205.087        | -30.969      | 574.728     | 574.696      | 0.032             |
|            | 206.951        | -19.952      | 574.564     | 574.527      | 0.037             |
|            | 203.600        | -5.267       | 574.550     | 574.523      | 0.027             |
|            | 202.924        | -0.709       | 575.116     | 575.093      | 0.023             |
|            | 208.558        | -10.036      | 574.565     | 574.555      | 0.010             |
|            | 213.300        | -4.606       | 574.639     | 574.615      | 0.025             |
|            | 212.645        | -0.604       | 575.122     | 575.116      | 0.005             |
|            | 213.704        | -31.673      | 574.708     | 574.678      | 0.030             |
|            | 215.543        | -20.259      | 574.562     | 574.576      | -0.014            |
|            | 216.442        | -10.314      | 574.606     | 574.600      | 0.007             |
|            | 220.854        | -32.019      | 574.657     | 574.635      | 0.022             |
|            | 223.069        | -21.266      | 574.619     | 574.627      | -0.008            |
|            | 225.331        | -11.126      | 574.597     | 574.630      | -0.033            |
|            | 222.454        | -5.271       | 574.675     | 574.630      | 0.045             |
|            | 222.038        | -0.667       | 575.086     | 575.099      | -0.013            |
|            | 230.489        | -31.981      | 574.674     | 574.630      | 0.044             |
|            | 231.974        | -21.768      | 574.601     | 574.606      | -0.005            |
|            | 233.217        | -11.287      | 574.590     | 574.595      | -0.005            |
|            | 231.611        | -4.221       | 574.668     | 574.630      | 0.038             |
|            | 232.513        | -0.997       | 575.074     | 575.030      | 0.044             |
|            | 239.835        | -31.768      | 574.653     | 574.614      | 0.040             |
|            | 241.308        | -21.919      | 574.528     | 574.544      | -0.015            |
|            | 240.707        | -11.770      | 574.503     | 574.537      | -0.035            |
|            | 241.629        | -4.003       | 574.603     | 574.562      | 0.041             |
|            | 241.605        | -0.664       | 575.125     | 575.097      | 0.028             |
|            | 249.153        | -31.136      | 574.614     | 574.624      | -0.009            |
|            | 249.920        | -21.273      | 574.479     | 574.483      | -0.004            |
|            | 248.747        | -11.922      | 574.462     | 574.480      | -0.018            |
|            | 252.519        | -4.164       | 574.526     | 574.484      | 0.042             |
|            | 251.768        | -0.711       | 575.052     | 575.087      | -0.035            |

## NORTH WETLANDS TOPSOIL CONFORMANCE

|         |         |         |         |        |
|---------|---------|---------|---------|--------|
| 257.306 | -32.449 | 574.776 | 574.803 | -0.027 |
| 257.498 | -20.907 | 574.431 | 574.429 | 0.002  |
| 257.789 | -12.231 | 574.439 | 574.451 | -0.012 |
| 259.125 | -4.645  | 574.515 | 574.480 | 0.035  |
| 259.578 | -0.842  | 575.040 | 575.061 | -0.020 |
| 269.289 | -29.753 | 574.724 | 574.725 | -0.001 |
| 268.747 | -20.138 | 574.384 | 574.356 | 0.028  |
| 267.515 | -12.122 | 574.375 | 574.346 | 0.029  |
| 268.031 | -4.659  | 574.490 | 574.458 | 0.032  |
| 267.481 | -2.969  | 574.669 | 574.636 | 0.033  |
| 267.137 | -0.104  | 575.121 | 575.130 | -0.009 |
| 277.278 | -28.951 | 574.772 | 574.776 | -0.005 |
| 274.228 | -20.035 | 574.334 | 574.354 | -0.020 |
| 276.474 | -16.644 | 574.239 | 574.218 | 0.021  |
| 274.050 | -13.047 | 574.250 | 574.216 | 0.034  |
| 273.477 | -7.726  | 574.273 | 574.302 | -0.028 |
| 275.436 | -6.340  | 574.285 | 574.291 | -0.006 |
| 274.407 | -4.220  | 574.466 | 574.477 | -0.011 |
| 275.929 | -2.475  | 574.771 | 574.735 | 0.036  |
| 275.300 | -0.234  | 575.175 | 575.130 | 0.045  |
| 275.305 | -0.146  | 575.150 | 575.130 | 0.020  |

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|------------|----------------|--------------|-------------|--------------|-------------------|
|            | 280.129        | -19.590      | 574.281     | 574.280      | 0.001             |
|            | 278.647        | -5.390       | 574.307     | 574.332      | -0.025            |
|            | 280.058        | -4.090       | 574.500     | 574.494      | 0.007             |
|            | 280.632        | -3.252       | 574.598     | 574.598      | 0.000             |
|            | 284.944        | -28.655      | 574.765     | 574.760      | 0.005             |
|            | 285.181        | -25.729      | 574.531     | 574.528      | 0.003             |
|            | 284.201        | -21.576      | 574.286     | 574.291      | -0.005            |
|            | 288.193        | -6.929       | 573.945     | 573.910      | 0.035             |
|            | 288.471        | -5.899       | 574.253     | 574.254      | -0.001            |
|            | 284.308        | -5.605       | 574.302     | 574.306      | -0.004            |
|            | 285.332        | -4.273       | 574.483     | 574.471      | 0.012             |
|            | 286.136        | -2.922       | 574.659     | 574.646      | 0.013             |
|            | 284.794        | -0.085       | 575.165     | 575.130      | 0.035             |
|            | 295.611        | -27.640      | 574.740     | 574.754      | -0.014            |
|            | 291.824        | -26.077      | 574.577     | 574.589      | -0.012            |
|            | 292.069        | -22.869      | 574.312     | 574.292      | 0.020             |
|            | 294.238        | -5.951       | 574.281     | 574.258      | 0.023             |
|            | 293.948        | -3.083       | 574.650     | 574.619      | 0.031             |
|            | 294.527        | -0.154       | 575.156     | 575.130      | 0.026             |
|            | 302.746        | -26.842      | 574.662     | 574.676      | -0.014            |
|            | 299.699        | -21.839      | 574.337     | 574.307      | 0.030             |
|            | 302.969        | -19.119      | 574.301     | 574.296      | 0.004             |
|            | 301.675        | -14.248      | 573.854     | 573.807      | 0.047             |
|            | 301.486        | -11.989      | 573.880     | 573.902      | -0.023            |
|            | 301.534        | -8.506       | 574.323     | 574.307      | 0.016             |
|            | 298.269        | -7.627       | 574.059     | 574.045      | 0.015             |
|            | 298.612        | -6.930       | 574.287     | 574.283      | 0.004             |
|            | 301.454        | -3.716       | 574.575     | 574.540      | 0.035             |
|            | 301.489        | -0.319       | 575.152     | 575.130      | 0.022             |
|            | 303.986        | -28.765      | 574.888     | 574.888      | 0.001             |
|            | 308.409        | -22.663      | 574.471     | 574.450      | 0.022             |

| NORTH WETLANDS TOPSOIL CONFORMANCE |         |         |         |        |
|------------------------------------|---------|---------|---------|--------|
| 308.250                            | -20.858 | 574.412 | 574.420 | -0.008 |
| 308.220                            | -15.458 | 574.325 | 574.349 | -0.024 |
| 303.574                            | -13.967 | 574.294 | 574.274 | 0.021  |
| 307.702                            | -4.780  | 574.473 | 574.460 | 0.013  |
| 309.927                            | -26.406 | 574.626 | 574.642 | -0.017 |
| 310.485                            | -20.765 | 574.413 | 574.447 | -0.034 |
| 309.362                            | -9.954  | 574.407 | 574.381 | 0.026  |
| 309.380                            | -0.163  | 575.110 | 575.130 | -0.020 |
| 315.190                            | -29.180 | 574.882 | 574.901 | -0.019 |
| 315.485                            | -22.830 | 574.511 | 574.480 | 0.031  |
| 316.030                            | -20.657 | 574.509 | 574.480 | 0.029  |
| 315.302                            | -15.813 | 574.435 | 574.456 | -0.021 |
| 317.348                            | -15.715 | 574.495 | 574.486 | 0.010  |
| 314.962                            | -13.967 | 574.480 | 574.451 | 0.029  |
| 314.444                            | -6.914  | 574.470 | 574.473 | -0.003 |
| 314.702                            | -4.366  | 574.469 | 574.493 | -0.024 |
| 315.283                            | -0.200  | 575.087 | 575.130 | -0.043 |

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|------------|----------------|--------------|-------------|--------------|-------------------|
| 321.366    | -30.457        | 574.905      | 574.876     | 574.876      | 0.029             |
| 320.104    | -27.454        | 574.654      | 574.630     | 574.630      | 0.024             |
| 321.369    | -21.395        | 574.556      | 574.548     | 574.548      | 0.008             |
| 321.000    | -12.898        | 574.560      | 574.530     | 574.530      | 0.030             |
| 322.281    | -9.449         | 574.535      | 574.550     | 574.550      | -0.016            |
| 321.011    | -4.043         | 574.581      | 574.584     | 574.584      | -0.003            |
| 322.185    | -0.159         | 575.118      | 575.130     | 575.130      | -0.012            |
| 328.971    | -20.851        | 574.616      | 574.619     | 574.619      | -0.002            |
| 328.542    | -12.684        | 574.588      | 574.606     | 574.606      | -0.018            |
| 328.360    | -3.706         | 574.613      | 574.630     | 574.630      | -0.017            |
| 330.007    | -3.145         | 574.623      | 574.630     | 574.630      | -0.007            |
| 327.921    | -0.283         | 575.097      | 575.130     | 575.130      | -0.033            |
| 333.779    | -31.310        | 574.926      | 574.938     | 574.938      | -0.013            |
| 333.823    | -28.663        | 574.681      | 574.660     | 574.660      | 0.021             |
| 336.579    | -20.790        | 574.560      | 574.577     | 574.577      | -0.018            |
| 335.957    | -12.452        | 574.588      | 574.592     | 574.592      | -0.004            |
| 335.169    | -3.062         | 574.670      | 574.630     | 574.630      | 0.040             |
| 333.960    | -0.198         | 575.109      | 575.130     | 575.130      | -0.021            |
| 343.908    | -19.684        | 574.454      | 574.480     | 574.480      | -0.026            |
| 344.632    | -13.649        | 574.451      | 574.474     | 574.474      | -0.024            |
| 339.841    | -7.604         | 574.549      | 574.572     | 574.572      | -0.022            |
| 340.835    | -2.721         | 574.714      | 574.684     | 574.684      | 0.030             |
| 339.930    | -0.216         | 575.126      | 575.130     | 575.130      | -0.004            |
| 348.721    | -29.704        | 574.864      | 574.875     | 574.875      | -0.011            |
| 345.728    | -26.196        | 574.505      | 574.491     | 574.491      | 0.015             |
| 346.220    | -8.489         | 574.488      | 574.488     | 574.488      | 0.000             |
| 346.100    | -2.271         | 574.765      | 574.774     | 574.774      | -0.009            |
| 345.017    | -0.144         | 575.100      | 575.130     | 575.130      | -0.030            |
| 352.090    | -26.204        | 574.501      | 574.519     | 574.519      | -0.018            |
| 355.809    | -20.054        | 574.308      | 574.312     | 574.312      | -0.004            |
| 353.016    | -13.779        | 574.334      | 574.359     | 574.359      | -0.025            |
| 350.889    | -4.702         | 574.491      | 574.481     | 574.481      | 0.010             |
| 350.837    | -0.194         | 575.097      | 575.130     | 575.130      | -0.033            |
| 357.513    | -30.630        | 574.988      | 575.008     | 575.008      | -0.020            |

| NORTH WETLANDS TOPSOIL CONFORMANCE |         |         |         |         |                 |
|------------------------------------|---------|---------|---------|---------|-----------------|
|                                    | 358.229 | -26.594 | 574.593 | 574.603 | -0.010          |
|                                    | 361.264 | -23.285 | 574.247 | 574.270 | -0.023          |
|                                    | 358.627 | -21.419 | 574.262 | 574.281 | -0.019          |
|                                    | 357.233 | -18.833 | 574.288 | 574.284 | 0.004           |
|                                    | 358.705 | -12.922 | 574.285 | 574.298 | -0.014          |
|                                    | 363.040 | -32.190 | 575.177 | 575.171 | 0.006           |
|                                    | 363.749 | -27.192 | 574.689 | 574.670 | 0.019           |
|                                    | 364.516 | -23.142 | 574.040 | 574.045 | -0.006          |
| (-0.003)                           | 379.158 | -30.230 | 574.737 | 574.790 | -0.053 < -0.050 |
|                                    | 379.270 | -25.954 | 574.521 | 574.512 | 0.008           |
| 0.005)                             | 388.262 | -33.402 | 574.892 | 574.837 | 0.055 > 0.050 ( |
|                                    | 388.415 | -28.093 | 574.497 | 574.464 | 0.033           |
|                                    | 397.983 | -33.569 | 574.803 | 574.817 | -0.013          |
|                                    | 399.341 | -28.488 | 574.396 | 574.369 | 0.028           |

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|------------|----------------|--------------|-------------|--------------|-------------------|
|            | 408.942        | -34.252      | 574.810     | 574.840      | -0.031            |
|            | 406.709        | -26.764      | 574.447     | 574.487      | -0.039            |
|            | 411.372        | -23.051      | 574.478     | 574.503      | -0.026            |
|            | 410.786        | -18.560      | 574.316     | 574.291      | 0.025             |
|            | 410.721        | -17.207      | 574.296     | 574.259      | 0.037             |
|            | 418.013        | -34.672      | 574.855     | 574.844      | 0.011             |
|            | 414.953        | -28.680      | 574.797     | 574.805      | -0.009            |
|            | 413.078        | -25.185      | 574.570     | 574.573      | -0.003            |
|            | 413.048        | -18.109      | 574.503     | 574.504      | -0.001            |
|            | 419.883        | -30.283      | 575.079     | 575.041      | 0.038             |
|            | 419.046        | -24.724      | 575.105     | 575.130      | -0.025            |
| (-0.148)   | 424.808        | -29.655      | 574.545     | 574.743      | -0.198 < -0.050   |
|            | 424.778        | -23.387      | 574.423     | 574.465      | -0.042            |
|            | 441.468        | -33.195      | 574.830     | 574.875      | -0.045            |
|            | 442.858        | -27.533      | 574.304     | 574.338      | -0.033            |
|            | 452.738        | -31.966      | 574.809     | 574.853      | -0.044            |
|            | 452.520        | -27.365      | 574.428     | 574.409      | 0.019             |
|            | 471.991        | -29.702      | 574.807     | 574.810      | -0.003            |
|            | 470.696        | -25.027      | 574.406     | 574.417      | -0.011            |
|            | 481.316        | -27.549      | 574.871     | 574.909      | -0.038            |
|            | 478.770        | -22.558      | 574.356     | 574.389      | -0.034            |
|            | 486.510        | -24.050      | 574.818     | 574.797      | 0.021             |
|            | 486.028        | -19.922      | 574.439     | 574.404      | 0.035             |
| (-0.018)   | 497.857        | -22.803      | 574.838     | 574.906      | -0.068 < -0.050   |
|            | 494.117        | -18.680      | 574.466     | 574.453      | 0.013             |
| (-0.013)   | 505.038        | -18.589      | 574.699     | 574.762      | -0.063 < -0.050   |



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 504.274 NORTH WETLANDS TOPSOIL CONFORMANCE  
 (-0.033) -15.143 574.341 574.424 -0.083 < -0.050

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POINTS PROCESSED : 304

VERTICAL SUMMARY

|                      |   |        |          |
|----------------------|---|--------|----------|
| Points Tested        | : | 304    |          |
| Within Tolerance     | : | 272    | ( 89.5%) |
| Too High             | : | 9      | ( 3.0%)  |
| Too Low              | : | 23     | ( 7.6%)  |
| Maximum Conformance: |   | 0.164  |          |
| Minimum Conformance: |   | -0.198 |          |
| Average Conformance: |   | -0.006 |          |
| Standard Deviation : |   | 0.035  |          |

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Sch 2 2.2(a)(ii)

Signed: \_\_\_\_\_

Sch 2 2.2(a)(ii)  
 Kerry Surveys P/L  
 Tue 23-Oct-2018 14:35:01

TOPSOIL CONFORMANCE REPORT SOUTH WETLANDS OCT23 DTG

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Original Survey File      : COMBINED GPS GL DATA
Lot Number               :
Lot Location             : SOUTH WETLANDS
Lot Description          : TOPSOIL CONFORMANCE

Project                  : aerial survey sept 2018
Control String           : "DESIGN FROM ALLUVIUM RECEIVED MARCH 25 DES
RETAININGWALLALIGNMENO->DES.RETAININGWALLALIGNMENO"
Design Pavement Tin      : "WETLANDS STH FL MAY18"

Depth From Design        : 0 (vertical)

Tolerances Measured     : vertical
Upper Tolerance          : 0.050
Lower Tolerance          : -0.050
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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|------------|----------------|--------------|-------------|--------------|-------------------|
| 0.005)     | 4.132          | 1.244        | 574.845     | 574.789      | 0.055 > 0.050 (   |
|            | 1.613          | 6.496        | 574.705     | 574.699      | 0.006             |
|            | 4.092          | 8.995        | 574.409     | 574.369      | 0.041             |
|            | 1.936          | 11.634       | 574.342     | 574.342      | 0.000             |
|            | 8.342          | 0.742        | 575.037     | 575.029      | 0.008             |
| 0.045)     | 5.915          | 3.988        | 574.671     | 574.630      | 0.041             |
|            | 14.031         | 0.832        | 575.078     | 575.088      | -0.010            |
|            | 15.174         | 3.717        | 574.624     | 574.583      | 0.041             |
|            | 19.003         | 11.602       | 573.325     | 573.230      | 0.095 > 0.050 (   |
|            | 24.408         | 0.486        | 575.090     | 575.130      | -0.040            |
| 0.025)     | 19.740         | 0.571        | 575.088     | 575.116      | -0.028            |
|            | 19.829         | 3.698        | 574.562     | 574.543      | 0.019             |
|            | 24.228         | 3.977        | 574.536     | 574.508      | 0.028             |
|            | 21.941         | 9.200        | 573.171     | 573.147      | 0.024             |
|            | 20.406         | 15.728       | 573.403     | 573.365      | 0.038             |
| 0.009)     | 27.032         | 9.245        | 573.158     | 573.132      | 0.027             |
|            | 29.735         | 15.242       | 573.493     | 573.455      | 0.039             |
|            | 25.081         | 16.528       | 573.380     | 573.305      | 0.075 > 0.050 (   |
|            | 27.292         | 20.394       | 574.439     | 574.463      | -0.023            |
|            | 27.645         | 24.336       | 575.132     | 575.128      | 0.004             |
| 0.009)     | 29.153         | 32.247       | 574.664     | 574.630      | 0.034             |
|            | 30.099         | 0.522        | 575.094     | 575.126      | -0.032            |
|            | 30.170         | 3.765        | 574.593     | 574.534      | 0.059 > 0.050 (   |
|            | 34.734         | 9.208        | 573.129     | 573.144      | -0.015            |
|            | 35.078         | 14.876       | 573.436     | 573.446      | -0.011            |
| 0.009)     | 31.511         | 18.909       | 574.461     | 574.474      | -0.014            |
|            | 32.933         | 22.401       | 575.121     | 575.097      | 0.024             |
|            | 34.515         | 22.962       | 575.121     | 575.130      | -0.009            |
|            | 34.839         | 25.009       | 575.120     | 575.109      | 0.012             |
|            | 36.054         | 0.713        | 575.101     | 575.087      | 0.014             |
| 0.009)     | 35.900         | 3.842        | 574.533     | 574.525      | 0.009             |
|            | 38.269         | 16.090       | 573.439     | 573.449      | -0.010            |

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 36.437 21.083 574.611 574.612 -0.001  
 37.903 24.301 574.605 574.571 0.034  
 35.358 35.513 574.614 574.630 -0.016  
 37.031 45.017 574.606 574.591 0.014  
 38.324 56.656 574.959 574.944 0.015

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|------------|----------------|--------------|-------------|--------------|-------------------|
|            | 40.911         | 0.605        | 575.082     | 575.120      | -0.038            |
|            | 40.963         | 3.771        | 574.539     | 574.541      | -0.002            |
|            | 40.671         | 9.378        | 573.160     | 573.130      | 0.030             |
|            | 41.972         | 17.533       | 573.323     | 573.306      | 0.017             |
|            | 41.500         | 20.984       | 574.298     | 574.308      | -0.010            |
|            | 43.469         | 21.837       | 574.314     | 574.300      | 0.015             |
|            | 40.514         | 31.442       | 574.511     | 574.535      | -0.023            |
|            | 42.966         | 41.683       | 574.550     | 574.549      | 0.001             |
|            | 41.002         | 51.077       | 574.544     | 574.558      | -0.014            |
|            | 40.694         | 54.225       | 574.645     | 574.670      | -0.025            |
| 0.002)     | 44.755         | 58.068       | 574.748     | 574.696      | 0.052 > 0.050 (   |
|            | 42.708         | 59.767       | 574.922     | 574.893      | 0.029             |
|            | 46.500         | 0.815        | 575.083     | 575.093      | -0.010            |
|            | 46.461         | 3.851        | 574.566     | 574.540      | 0.026             |
|            | 46.253         | 9.479        | 573.158     | 573.130      | 0.028             |
|            | 47.442         | 17.709       | 573.176     | 573.130      | 0.046             |
|            | 48.952         | 23.072       | 574.314     | 574.311      | 0.003             |
|            | 46.711         | 30.613       | 574.525     | 574.504      | 0.021             |
|            | 48.784         | 38.605       | 574.523     | 574.533      | -0.010            |
|            | 50.839         | 43.764       | 574.451     | 574.407      | 0.044             |
|            | 46.011         | 48.379       | 574.458     | 574.409      | 0.048             |
| 0.007)     | 50.590         | 59.997       | 574.624     | 574.566      | 0.057 > 0.050 (   |
|            | 48.266         | 62.788       | 574.867     | 574.854      | 0.013             |
|            | 52.109         | 0.880        | 575.103     | 575.095      | 0.009             |
|            | 52.169         | 4.409        | 574.450     | 574.480      | -0.029            |
| 0.001)     | 53.323         | 9.812        | 573.181     | 573.130      | 0.051 > 0.050 (   |
|            | 55.913         | 13.998       | 573.240     | 573.216      | 0.024             |
|            | 53.158         | 18.197       | 573.315     | 573.325      | -0.009            |
|            | 51.079         | 49.919       | 574.252     | 574.280      | -0.029            |
| 0.002)     | 51.415         | 55.787       | 574.228     | 574.176      | 0.052 > 0.050 (   |
|            | 59.293         | 7.284        | 574.492     | 574.473      | 0.019             |
|            | 60.401         | 13.450       | 574.429     | 574.422      | 0.006             |
|            | 56.251         | 21.090       | 574.350     | 574.349      | 0.002             |
|            | 59.709         | 26.580       | 575.163     | 575.130      | 0.033             |
|            | 56.141         | 28.249       | 574.627     | 574.584      | 0.043             |
|            | 58.794         | 31.033       | 574.639     | 574.630      | 0.009             |
|            | 56.653         | 37.871       | 574.483     | 574.486      | -0.002            |
|            | 58.136         | 41.921       | 574.400     | 574.391      | 0.009             |
|            | 57.798         | 47.337       | 574.261     | 574.282      | -0.021            |
|            | 56.122         | 50.757       | 573.451     | 573.430      | 0.021             |
|            | 58.296         | 56.883       | 573.506     | 573.511      | -0.005            |
|            | 57.563         | 59.552       | 574.360     | 574.329      | 0.030             |
|            | 56.957         | 62.209       | 574.664     | 574.656      | 0.007             |
|            | 56.844         | 65.039       | 574.932     | 574.884      | 0.048             |
| 0.007)     | 63.586         | 4.042        | 575.127     | 575.070      | 0.057 > 0.050 (   |

| TOPSOIL | CONFORMANCE | REPORT  | SOUTH WETLANDS | OCT23 | DTG    |
|---------|-------------|---------|----------------|-------|--------|
| 65.054  | 9.022       | 575.161 | 575.130        |       | 0.031  |
| 63.780  | 15.663      | 575.073 | 575.032        |       | 0.041  |
| 62.271  | 21.170      | 575.173 | 575.130        |       | 0.043  |
| 64.951  | 26.261      | 575.119 | 575.077        |       | 0.042  |
| 61.763  | 29.737      | 575.122 | 575.096        |       | 0.026  |
| 66.734  | 29.937      | 574.480 | 574.481        |       | -0.001 |
| 62.339  | 32.698      | 574.566 | 574.601        |       | -0.034 |
| 62.380  | 36.817      | 574.442 | 574.453        |       | -0.011 |
| 64.513  | 40.065      | 574.386 | 574.383        |       | 0.003  |
| 62.686  | 47.817      | 574.289 | 574.282        |       | 0.007  |
| 62.363  | 49.051      | 574.049 | 574.071        |       | -0.022 |
| 62.350  | 50.148      | 573.691 | 573.706        |       | -0.015 |
| 66.101  | 58.159      | 573.439 | 573.430        |       | 0.009  |

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |           |
|------------|----------------|--------------|-------------|--------------|-------------------|-----------|
| 0.001)     | 63.284         | 62.300       | 574.552     | 574.501      | 0.051             | > 0.050 ( |
|            | 63.422         | 65.864       | 574.861     | 574.822      | 0.039             |           |
|            | 69.709         | 7.965        | 575.177     | 575.130      | 0.047             |           |
|            | 68.983         | 13.949       | 575.148     | 575.130      | 0.018             |           |
|            | 67.283         | 20.130       | 575.172     | 575.130      | 0.042             |           |
|            | 69.256         | 24.422       | 574.528     | 574.556      | -0.028            |           |
|            | 67.513         | 34.327       | 574.455     | 574.434      | 0.021             |           |
|            | 68.476         | 39.658       | 574.375     | 574.358      | 0.016             |           |
|            | 66.932         | 45.463       | 574.164     | 574.174      | -0.010            |           |
|            | 72.858         | 3.613        | 575.150     | 575.130      | 0.020             |           |
|            | 73.620         | 7.815        | 574.680     | 574.630      | 0.050             |           |
|            | 75.600         | 9.759        | 574.620     | 574.608      | 0.012             |           |
|            | 72.294         | 12.645       | 574.643     | 574.621      | 0.021             |           |
|            | 75.532         | 17.708       | 574.570     | 574.532      | 0.038             |           |
|            | 75.561         | 17.732       | 574.574     | 574.532      | 0.042             |           |
|            | 76.268         | 23.345       | 574.465     | 574.467      | -0.002            |           |
|            | 75.679         | 30.196       | 574.430     | 574.413      | 0.017             |           |
|            | 75.232         | 35.527       | 574.432     | 574.390      | 0.041             |           |
|            | 75.321         | 42.143       | 574.423     | 574.421      | 0.001             |           |
|            | 76.980         | 43.252       | 574.505     | 574.478      | 0.027             |           |
|            | 75.044         | 47.569       | 574.337     | 574.382      | -0.044            |           |
|            | 76.072         | 51.578       | 574.559     | 574.539      | 0.020             |           |
|            | 73.939         | 55.892       | 574.297     | 574.337      | -0.040            |           |
|            | 75.319         | 59.389       | 574.589     | 574.545      | 0.044             |           |
|            | 72.509         | 61.467       | 574.424     | 574.423      | 0.001             |           |
| 0.002)     | 74.134         | 63.923       | 574.796     | 574.744      | 0.052             | > 0.050 ( |
|            | 72.846         | 68.516       | 575.026     | 575.026      | 0.000             |           |
|            | 81.694         | 0.365        | 575.128     | 575.130      | -0.002            |           |
|            | 81.714         | 3.389        | 574.680     | 574.630      | 0.050             |           |
|            | 82.837         | 24.224       | 574.519     | 574.480      | 0.039             |           |
|            | 81.654         | 30.416       | 574.501     | 574.476      | 0.025             |           |
|            | 79.074         | 35.954       | 574.497     | 574.474      | 0.023             |           |
| 0.008)     | 80.995         | 44.692       | 575.188     | 575.130      | 0.058             | > 0.050 ( |
|            | 79.901         | 51.525       | 575.156     | 575.130      | 0.026             |           |
|            | 82.779         | 56.874       | 575.136     | 575.130      | 0.006             |           |
|            | 79.165         | 57.979       | 575.164     | 575.130      | 0.034             |           |
|            | 77.922         | 64.020       | 575.126     | 575.113      | 0.013             |           |
|            | 84.991         | 9.448        | 574.643     | 574.617      | 0.027             |           |
|            | 83.962         | 17.485       | 574.599     | 574.551      | 0.048             |           |
|            | 86.339         | 25.911       | 574.620     | 574.586      | 0.034             |           |

| Point  | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|--------|----------------|--------------|-------------|--------------|-------------------|
|        | 86.513         | 31.111       | 575.174     | 575.130      | 0.044             |
|        | 83.420         | 36.921       | 575.161     | 575.130      | 0.031             |
|        | 84.469         | 44.000       | 575.176     | 575.130      | 0.046             |
|        | 83.083         | 50.840       | 575.153     | 575.130      | 0.023             |
| 0.002) | 83.136         | 62.577       | 575.182     | 575.130      | 0.052 > 0.050 (   |
|        | 88.212         | 0.260        | 575.113     | 575.130      | -0.017            |
|        | 88.349         | 3.836        | 574.671     | 574.630      | 0.041             |
|        | 91.902         | 18.687       | 574.611     | 574.615      | -0.005            |
|        | 91.691         | 27.664       | 575.090     | 575.130      | -0.040            |
|        | 92.290         | 33.009       | 575.133     | 575.130      | 0.003             |
|        | 89.572         | 38.427       | 575.168     | 575.130      | 0.038             |
|        | 92.382         | 45.940       | 574.508     | 574.462      | 0.046             |
|        | 93.150         | 51.831       | 574.254     | 574.292      | -0.038            |
|        | 91.569         | 52.246       | 574.502     | 574.487      | 0.014             |
|        | 92.111         | 59.321       | 574.520     | 574.500      | 0.020             |
|        | 92.599         | 66.500       | 575.065     | 575.086      | -0.021            |

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|------------|----------------|--------------|-------------|--------------|-------------------|
|            | 94.169         | 0.274        | 575.107     | 575.130      | -0.023            |
|            | 94.064         | 3.097        | 574.673     | 574.630      | 0.043             |
|            | 93.591         | 9.415        | 574.637     | 574.630      | 0.007             |
|            | 94.895         | 24.810       | 574.627     | 574.630      | -0.003            |
|            | 94.722         | 28.769       | 575.058     | 575.068      | -0.009            |
|            | 95.825         | 33.341       | 574.598     | 574.576      | 0.023             |
|            | 98.249         | 39.653       | 574.433     | 574.396      | 0.037             |
|            | 93.601         | 40.613       | 574.506     | 574.475      | 0.031             |
|            | 96.764         | 46.459       | 574.351     | 574.304      | 0.047             |
|            | 96.152         | 50.289       | 573.469     | 573.441      | 0.028             |
|            | 95.753         | 52.492       | 573.441     | 573.448      | -0.007            |
|            | 93.766         | 56.664       | 574.297     | 574.299      | -0.003            |
|            | 97.170         | 56.917       | 573.578     | 573.546      | 0.032             |
|            | 97.804         | 60.298       | 574.315     | 574.304      | 0.011             |
|            | 94.483         | 62.869       | 574.487     | 574.455      | 0.032             |
|            | 97.517         | 69.514       | 575.097     | 575.069      | 0.029             |
|            | 102.141        | 0.396        | 575.107     | 575.130      | -0.023            |
|            | 102.608        | 9.613        | 574.663     | 574.619      | 0.044             |
|            | 103.129        | 19.221       | 574.588     | 574.539      | 0.049             |
| 0.003)     | 103.534        | 26.482       | 574.514     | 574.460      | 0.053 > 0.050 (   |
|            | 103.231        | 35.333       | 574.420     | 574.389      | 0.031             |
| 0.002)     | 103.244        | 39.683       | 574.408     | 574.356      | 0.052 > 0.050 (   |
|            | 102.380        | 46.212       | 574.325     | 574.293      | 0.032             |
|            | 99.276         | 49.273       | 573.488     | 573.450      | 0.038             |
|            | 103.940        | 52.136       | 573.416     | 573.430      | -0.014            |
|            | 101.693        | 58.919       | 573.594     | 573.631      | -0.037            |
|            | 102.570        | 61.211       | 574.299     | 574.302      | -0.002            |
|            | 108.428        | 0.463        | 575.117     | 575.130      | -0.013            |
|            | 108.384        | 3.465        | 574.656     | 574.630      | 0.026             |
|            | 108.770        | 9.986        | 574.634     | 574.588      | 0.046             |
|            | 109.011        | 17.418       | 574.538     | 574.530      | 0.008             |
|            | 108.904        | 24.035       | 574.497     | 574.497      | 0.000             |
| 0.004)     | 108.256        | 30.408       | 574.510     | 574.456      | 0.054 > 0.050 (   |
|            | 107.706        | 36.876       | 574.429     | 574.417      | 0.012             |
| 0.001)     | 106.970        | 43.506       | 574.404     | 574.353      | 0.051 > 0.050 (   |

|        | TOPSOIL | CONFORMANCE | REPORT  | SOUTH WETLANDS | OCT23 | DTG             |
|--------|---------|-------------|---------|----------------|-------|-----------------|
|        | 106.110 | 48.758      | 574.336 | 574.288        |       | 0.048           |
|        | 109.567 | 53.588      | 574.319 | 574.282        |       | 0.037           |
|        | 106.852 | 55.428      | 573.468 | 573.430        |       | 0.038           |
|        | 105.065 | 58.294      | 573.521 | 573.519        |       | 0.002           |
|        | 107.927 | 59.345      | 574.288 | 574.264        |       | 0.023           |
|        | 105.689 | 59.635      | 574.013 | 574.000        |       | 0.013           |
|        | 108.350 | 67.869      | 575.037 | 575.007        |       | 0.030           |
|        | 116.681 | 2.108       | 575.162 | 575.130        |       | 0.032           |
|        | 116.369 | 5.470       | 574.694 | 574.660        |       | 0.034           |
|        | 116.896 | 11.319      | 574.674 | 574.636        |       | 0.038           |
|        | 116.716 | 17.020      | 574.672 | 574.629        |       | 0.043           |
|        | 116.246 | 23.899      | 574.679 | 574.625        |       | 0.054 > 0.050 ( |
| 0.004) | 114.325 | 30.018      | 574.591 | 574.607        |       | -0.016          |
|        | 112.052 | 41.066      | 574.457 | 574.420        |       | 0.037           |
|        | 112.299 | 45.531      | 574.430 | 574.390        |       | 0.039           |
|        | 115.444 | 50.900      | 574.436 | 574.386        |       | 0.050           |
|        | 115.521 | 59.489      | 574.501 | 574.480        |       | 0.021           |

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|------------|----------------|--------------|-------------|--------------|-------------------|
|            | 119.670        | 11.439       | 575.152     | 575.130      | 0.022             |
|            | 119.283        | 17.315       | 575.157     | 575.130      | 0.027             |
|            | 118.843        | 24.244       | 575.175     | 575.127      | 0.048             |
|            | 117.636        | 30.360       | 575.170     | 575.130      | 0.040             |
|            | 121.559        | 31.629       | 575.171     | 575.128      | 0.043             |
|            | 118.145        | 35.099       | 575.100     | 575.113      | -0.014            |
|            | 117.443        | 37.307       | 574.621     | 574.650      | -0.029            |
|            | 119.804        | 43.186       | 574.536     | 574.489      | 0.047             |
|            | 121.237        | 48.090       | 574.471     | 574.482      | -0.012            |
|            | 120.341        | 64.399       | 574.997     | 574.986      | 0.011             |
|            | 125.015        | 3.396        | 575.090     | 575.130      | -0.040            |
|            | 127.270        | 7.914        | 574.513     | 574.517      | -0.005            |
|            | 123.256        | 8.079        | 575.146     | 575.130      | 0.016             |
|            | 125.857        | 13.577       | 574.667     | 574.664      | 0.003             |
|            | 123.274        | 17.150       | 575.145     | 575.130      | 0.015             |
|            | 126.578        | 17.511       | 574.633     | 574.617      | 0.016             |
|            | 126.953        | 23.285       | 574.539     | 574.576      | -0.037            |
|            | 123.160        | 23.952       | 575.132     | 575.130      | 0.002             |
|            | 127.303        | 27.269       | 574.511     | 574.493      | 0.018             |
|            | 124.488        | 31.989       | 574.629     | 574.604      | 0.026             |
|            | 124.804        | 38.966       | 574.600     | 574.630      | -0.030            |
|            | 122.508        | 51.570       | 574.478     | 574.486      | -0.008            |
|            | 123.065        | 55.368       | 574.552     | 574.528      | 0.023             |
|            | 123.894        | 59.155       | 574.687     | 574.652      | 0.035             |
|            | 125.315        | 63.548       | 575.002     | 575.010      | -0.008            |
|            | 130.409        | 0.209        | 575.135     | 575.130      | 0.005             |
|            | 131.424        | 3.979        | 574.543     | 574.508      | 0.035             |
|            | 128.742        | 5.292        | 574.494     | 574.482      | 0.012             |
|            | 132.244        | 8.800        | 574.079     | 574.062      | 0.017             |
|            | 130.138        | 9.468        | 574.312     | 574.307      | 0.005             |
|            | 131.834        | 11.091       | 573.657     | 573.662      | -0.005            |
|            | 128.503        | 13.291       | 574.370     | 574.370      | 0.001             |
|            | 130.566        | 13.687       | 573.805     | 573.835      | -0.030            |
|            | 128.739        | 17.409       | 574.366     | 574.346      | 0.020             |
|            | 131.051        | 19.794       | 573.875     | 573.890      | -0.014            |
|            | 130.392        | 21.798       | 574.305     | 574.321      | -0.017            |
|            | 128.443        | 34.163       | 574.478     | 574.480      | -0.002            |
|            | 127.705        | 43.827       | 574.626     | 574.596      | 0.030             |

|        | TOPSOIL | CONFORMANCE | REPORT  | SOUTH WETLANDS | OCT23 DTG       |
|--------|---------|-------------|---------|----------------|-----------------|
|        | 127.722 | 50.831      | 574.567 | 574.540        | 0.026           |
|        | 132.172 | 50.973      | 574.597 | 574.609        | -0.012          |
|        | 135.027 | 0.210       | 575.153 | 575.130        | 0.023           |
|        | 134.345 | 1.840       | 574.900 | 574.862        | 0.038           |
|        | 134.932 | 3.193       | 574.635 | 574.606        | 0.029           |
|        | 137.368 | 5.563       | 574.374 | 574.344        | 0.030           |
|        | 133.892 | 6.632       | 574.308 | 574.306        | 0.002           |
|        | 134.477 | 9.041       | 573.658 | 573.619        | 0.039           |
|        | 136.776 | 19.244      | 573.468 | 573.430        | 0.038           |
| 0.006) | 135.332 | 19.491      | 573.486 | 573.430        | 0.056 > 0.050 ( |
|        | 133.667 | 23.568      | 574.342 | 574.301        | 0.041           |
|        | 135.545 | 26.438      | 574.389 | 574.350        | 0.039           |
|        | 135.825 | 31.245      | 574.396 | 574.426        | -0.029          |
|        | 136.139 | 31.382      | 574.435 | 574.432        | 0.003           |
|        | 137.589 | 35.049      | 574.508 | 574.480        | 0.028           |
|        | 132.954 | 35.425      | 574.448 | 574.476        | -0.027          |
|        | 137.654 | 40.920      | 574.600 | 574.599        | 0.001           |
|        | 132.784 | 41.199      | 574.577 | 574.602        | -0.025          |
|        | 134.691 | 45.839      | 574.623 | 574.630        | -0.007          |
|        | 134.920 | 58.663      | 574.800 | 574.775        | 0.025           |

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|------------|----------------|--------------|-------------|--------------|-------------------|
|            | 140.021        | 0.073        | 575.153     | 575.130      | 0.023             |
|            | 141.002        | 1.695        | 574.888     | 574.891      | -0.003            |
|            | 139.722        | 3.104        | 574.643     | 574.617      | 0.026             |
|            | 141.460        | 5.377        | 574.398     | 574.363      | 0.035             |
|            | 138.643        | 7.334        | 573.881     | 573.869      | 0.012             |
|            | 138.942        | 8.285        | 573.586     | 573.543      | 0.043             |
|            | 143.460        | 8.430        | 573.480     | 573.430      | 0.050             |
|            | 139.127        | 15.366       | 573.480     | 573.430      | 0.050             |
|            | 143.108        | 16.413       | 574.300     | 574.284      | 0.017             |
|            | 139.358        | 20.509       | 574.257     | 574.216      | 0.041             |
|            | 141.531        | 20.850       | 574.345     | 574.327      | 0.018             |
|            | 143.294        | 25.305       | 574.463     | 574.473      | -0.010            |
|            | 141.425        | 30.975       | 574.632     | 574.634      | -0.001            |
|            | 141.574        | 36.953       | 574.698     | 574.701      | -0.003            |
|            | 141.950        | 42.850       | 574.708     | 574.665      | 0.043             |
|            | 143.514        | 49.877       | 574.731     | 574.693      | 0.038             |
|            | 139.143        | 50.107       | 574.613     | 574.630      | -0.017            |
| 0.010)     | 142.453        | 52.887       | 574.729     | 574.669      | 0.060 > 0.050 (   |
|            | 140.367        | 55.321       | 574.732     | 574.722      | 0.009             |
|            | 141.652        | 58.319       | 574.986     | 574.963      | 0.023             |
|            | 144.089        | 0.008        | 575.149     | 575.130      | 0.019             |
|            | 148.223        | 0.088        | 575.159     | 575.130      | 0.029             |
|            | 144.497        | 3.326        | 574.604     | 574.589      | 0.015             |
|            | 146.719        | 5.023        | 574.418     | 574.388      | 0.029             |
|            | 145.486        | 6.992        | 573.916     | 573.883      | 0.033             |
|            | 147.156        | 9.099        | 573.456     | 573.430      | 0.026             |
|            | 148.228        | 11.322       | 573.535     | 573.497      | 0.038             |
| 0.005)     | 144.285        | 12.827       | 573.509     | 573.453      | 0.055 > 0.050 (   |
|            | 144.923        | 14.128       | 573.896     | 573.920      | -0.024            |
|            | 146.614        | 15.248       | 574.312     | 574.287      | 0.025             |
|            | 145.632        | 16.541       | 574.318     | 574.310      | 0.008             |
|            | 148.740        | 20.295       | 574.410     | 574.388      | 0.022             |
|            | 146.425        | 25.740       | 574.607     | 574.612      | -0.004            |
|            | 146.130        | 28.298       | 575.121     | 575.097      | 0.024             |

|        | TOPSOIL | CONFORMANCE | REPORT  | SOUTH WETLANDS | OCT23 | DTG    |           |
|--------|---------|-------------|---------|----------------|-------|--------|-----------|
|        | 146.114 | 31.189      | 575.169 | 575.130        |       | 0.039  |           |
|        | 144.080 | 31.197      | 575.138 | 575.130        |       | 0.008  |           |
|        | 147.986 | 31.590      | 575.133 | 575.120        |       | 0.013  |           |
| 0.009) | 146.115 | 36.546      | 575.189 | 575.130        |       | 0.059  | > 0.050 ( |
|        | 143.857 | 36.647      | 575.153 | 575.130        |       | 0.023  |           |
|        | 147.785 | 37.743      | 575.161 | 575.130        |       | 0.031  |           |
|        | 144.615 | 41.913      | 575.169 | 575.130        |       | 0.039  |           |
|        | 146.837 | 42.041      | 575.163 | 575.130        |       | 0.033  |           |
|        | 148.803 | 43.191      | 575.138 | 575.130        |       | 0.008  |           |
|        | 147.727 | 47.007      | 575.134 | 575.130        |       | 0.004  |           |
|        | 145.854 | 49.182      | 575.085 | 575.130        |       | -0.045 |           |
|        | 145.855 | 49.195      | 575.084 | 575.130        |       | -0.046 |           |
|        | 144.724 | 54.393      | 575.115 | 575.094        |       | 0.021  |           |
|        | 152.548 | 0.263       | 575.129 | 575.130        |       | -0.001 |           |
|        | 149.027 | 1.644       | 574.898 | 574.901        |       | -0.003 |           |
|        | 148.900 | 3.336       | 574.598 | 574.588        |       | 0.010  |           |
|        | 150.192 | 7.222       | 574.304 | 574.290        |       | 0.015  |           |
|        | 149.110 | 8.153       | 573.905 | 573.868        |       | 0.037  |           |
|        | 151.126 | 10.434      | 574.321 | 574.286        |       | 0.035  |           |
|        | 149.982 | 13.474      | 574.303 | 574.287        |       | 0.016  |           |
| 0.013) | 150.059 | 13.536      | 574.352 | 574.289        |       | 0.063  | > 0.050 ( |
|        | 153.297 | 16.759      | 574.413 | 574.376        |       | 0.037  |           |
|        | 151.876 | 23.464      | 574.487 | 574.464        |       | 0.023  |           |
|        | 150.525 | 31.571      | 574.616 | 574.621        |       | -0.004 |           |
|        | 153.807 | 32.349      | 574.481 | 574.472        |       | 0.009  |           |
| 0.001) | 151.945 | 35.573      | 574.502 | 574.451        |       | 0.051  | > 0.050 ( |

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |           |
|------------|----------------|--------------|-------------|--------------|-------------------|-----------|
|            | 150.453        | 37.136       | 574.654     | 574.620      | 0.034             |           |
|            | 152.979        | 40.697       | 574.419     | 574.404      | 0.015             |           |
|            | 151.066        | 41.617       | 574.670     | 574.688      | -0.018            |           |
|            | 152.509        | 45.847       | 574.743     | 574.716      | 0.026             |           |
|            | 150.423        | 46.790       | 575.118     | 575.130      | -0.012            |           |
|            | 156.384        | 0.396        | 575.116     | 575.130      | -0.014            |           |
|            | 160.083        | 0.554        | 575.150     | 575.130      | 0.020             |           |
|            | 158.622        | 4.838        | 574.591     | 574.563      | 0.028             |           |
|            | 161.008        | 8.470        | 574.604     | 574.623      | -0.020            |           |
|            | 156.787        | 10.486       | 574.406     | 574.396      | 0.010             |           |
|            | 159.147        | 21.144       | 574.512     | 574.473      | 0.039             |           |
|            | 159.308        | 33.591       | 574.185     | 574.160      | 0.025             |           |
|            | 158.766        | 35.974       | 573.943     | 573.944      | -0.001            |           |
|            | 159.926        | 39.662       | 573.870     | 573.891      | -0.022            |           |
|            | 159.891        | 43.848       | 574.436     | 574.440      | -0.004            |           |
|            | 164.624        | 0.385        | 575.140     | 575.130      | 0.010             |           |
|            | 162.560        | 1.489        | 575.166     | 575.130      | 0.036             |           |
| 0.016)     | 164.742        | 4.128        | 575.196     | 575.130      | 0.066             | > 0.050 ( |
|            | 165.704        | 7.963        | 575.123     | 575.130      | -0.007            |           |
|            | 163.880        | 9.545        | 575.121     | 575.130      | -0.009            |           |
|            | 164.704        | 12.213       | 575.128     | 575.130      | -0.002            |           |
|            | 162.251        | 13.876       | 574.640     | 574.669      | -0.029            |           |
|            | 165.482        | 16.506       | 575.126     | 575.112      | 0.014             |           |
|            | 164.125        | 20.257       | 574.597     | 574.614      | -0.016            |           |
|            | 162.026        | 26.882       | 574.523     | 574.493      | 0.030             |           |
|            | 161.716        | 30.486       | 574.457     | 574.480      | -0.023            |           |
|            | 166.708        | 31.886       | 574.473     | 574.440      | 0.032             |           |



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|--------|---------|-------------|---------|----------------|-----------|-----------|
|        | 161.842 | 32.582      | 574.136 | 574.117        | 0.019     |           |
|        | 165.733 | 33.467      | 574.098 | 574.091        | 0.006     |           |
|        | 163.645 | 41.903      | 573.658 | 573.616        | 0.043     |           |
|        | 163.722 | 45.195      | 574.440 | 574.439        | 0.001     |           |
|        | 161.793 | 47.557      | 574.653 | 574.611        | 0.041     |           |
| 0.010) | 164.634 | 48.011      | 574.745 | 574.685        | 0.060     | > 0.050 ( |
|        | 163.724 | 50.143      | 575.003 | 575.043        | -0.040    |           |
|        | 168.273 | 0.406       | 575.130 | 575.130        | 0.000     |           |
|        | 170.503 | 3.265       | 575.094 | 575.087        | 0.006     |           |
|        | 170.965 | 6.567       | 574.672 | 574.638        | 0.035     |           |
|        | 168.294 | 6.683       | 575.125 | 575.130        | -0.005    |           |
|        | 167.830 | 10.921      | 575.115 | 575.130        | -0.015    |           |
|        | 170.685 | 12.559      | 574.720 | 574.693        | 0.027     |           |
|        | 167.185 | 14.315      | 575.160 | 575.130        | 0.030     |           |
|        | 169.115 | 15.671      | 575.130 | 575.130        | 0.000     |           |
|        | 171.651 | 18.496      | 574.648 | 574.649        | 0.000     |           |
|        | 168.156 | 19.121      | 575.088 | 575.082        | 0.006     |           |
|        | 168.583 | 22.072      | 574.576 | 574.579        | -0.003    |           |
|        | 169.072 | 25.142      | 574.500 | 574.480        | 0.020     |           |
|        | 167.464 | 26.755      | 574.510 | 574.480        | 0.030     |           |
|        | 171.076 | 27.925      | 574.471 | 574.476        | -0.005    |           |
|        | 171.150 | 29.604      | 574.526 | 574.480        | 0.046     |           |
|        | 170.152 | 35.341      | 574.497 | 574.477        | 0.020     |           |
|        | 168.535 | 37.917      | 574.072 | 574.061        | 0.011     |           |
|        | 170.935 | 39.479      | 574.523 | 574.484        | 0.039     |           |
|        | 168.048 | 40.986      | 574.100 | 574.076        | 0.024     |           |
|        | 170.962 | 42.727      | 574.577 | 574.551        | 0.026     |           |
|        | 168.921 | 42.780      | 574.468 | 574.428        | 0.041     |           |
| 0.001) | 169.252 | 43.696      | 574.556 | 574.505        | 0.051     | > 0.050 ( |
|        | 170.145 | 46.624      | 574.801 | 574.772        | 0.030     |           |
|        | 170.559 | 47.534      | 574.913 | 574.880        | 0.034     |           |

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| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |           |
|------------|----------------|--------------|-------------|--------------|-------------------|-----------|
|            | 176.522        | 0.316        | 575.134     | 575.130      | 0.004             |           |
|            | 172.525        | 0.375        | 575.164     | 575.130      | 0.034             |           |
|            | 176.909        | 2.821        | 574.707     | 574.666      | 0.042             |           |
|            | 173.500        | 3.653        | 574.673     | 574.663      | 0.010             |           |
|            | 176.836        | 5.119        | 574.529     | 574.510      | 0.019             |           |
|            | 174.229        | 8.228        | 574.478     | 574.481      | -0.003            |           |
|            | 174.752        | 11.780       | 574.284     | 574.239      | 0.045             |           |
|            | 173.356        | 12.122       | 574.455     | 574.436      | 0.018             |           |
|            | 173.288        | 16.820       | 574.492     | 574.488      | 0.004             |           |
|            | 174.747        | 16.868       | 574.339     | 574.305      | 0.034             |           |
|            | 174.741        | 16.875       | 574.340     | 574.306      | 0.035             |           |
|            | 174.242        | 19.812       | 574.347     | 574.314      | 0.033             |           |
| 0.009)     | 172.236        | 23.288       | 574.438     | 574.380      | 0.059             | > 0.050 ( |
|            | 175.903        | 23.450       | 574.282     | 574.246      | 0.036             |           |
|            | 175.162        | 27.615       | 574.407     | 574.386      | 0.021             |           |
|            | 174.954        | 31.316       | 574.502     | 574.489      | 0.013             |           |
|            | 173.008        | 33.134       | 574.561     | 574.525      | 0.036             |           |
|            | 176.183        | 35.925       | 574.679     | 574.634      | 0.045             |           |
|            | 175.843        | 38.258       | 574.669     | 574.629      | 0.041             |           |
|            | 173.284        | 38.275       | 574.593     | 574.554      | 0.039             |           |
|            | 176.932        | 39.541       | 574.721     | 574.696      | 0.025             |           |
| 0.007)     | 173.033        | 43.089       | 574.693     | 574.636      | 0.057             | > 0.050 ( |

| TOPSOIL | CONFORMANCE | REPORT  | SOUTH WETLANDS | OCT23 | DTG    |
|---------|-------------|---------|----------------|-------|--------|
| 180.571 | 0.318       | 575.154 | 575.130        |       | 0.024  |
| 180.982 | 3.095       | 574.670 | 574.627        |       | 0.043  |
| 180.437 | 4.160       | 574.545 | 574.517        |       | 0.029  |
| 177.255 | 6.939       | 574.370 | 574.328        |       | 0.042  |
| 180.729 | 9.221       | 573.260 | 573.236        |       | 0.024  |
| 178.014 | 12.106      | 573.192 | 573.148        |       | 0.044  |
| 178.328 | 15.614      | 573.173 | 573.162        |       | 0.011  |
| 177.815 | 18.814      | 573.319 | 573.311        |       | 0.008  |
| 179.690 | 22.232      | 573.174 | 573.130        |       | 0.044  |
| 179.832 | 25.106      | 573.955 | 573.913        |       | 0.042  |
| 178.214 | 33.369      | 574.646 | 574.652        |       | -0.006 |
| 184.846 | 0.141       | 575.150 | 575.130        |       | 0.020  |
| 185.673 | 2.987       | 574.681 | 574.633        |       | 0.048  |
| 184.539 | 4.010       | 574.511 | 574.507        |       | 0.004  |
| 187.186 | 5.759       | 574.275 | 574.285        |       | -0.010 |
| 182.523 | 6.106       | 574.233 | 574.207        |       | 0.026  |
| 186.222 | 8.834       | 573.262 | 573.269        |       | -0.006 |
| 185.615 | 25.437      | 573.880 | 573.842        |       | 0.038  |
| 184.638 | 28.548      | 574.385 | 574.368        |       | 0.017  |
| 187.189 | 28.873      | 574.497 | 574.454        |       | 0.044  |
| 185.626 | 32.526      | 574.620 | 574.650        |       | -0.030 |
| 184.935 | 36.808      | 574.787 | 574.783        |       | 0.004  |
| 189.126 | 0.160       | 575.133 | 575.130        |       | 0.003  |
| 189.862 | 2.976       | 574.652 | 574.635        |       | 0.017  |
| 188.348 | 3.964       | 574.530 | 574.510        |       | 0.020  |
| 192.173 | 4.122       | 574.519 | 574.490        |       | 0.029  |
| 192.399 | 6.040       | 574.215 | 574.200        |       | 0.015  |
| 190.715 | 8.731       | 573.316 | 573.303        |       | 0.013  |
| 190.278 | 19.857      | 573.339 | 573.310        |       | 0.029  |
| 192.045 | 20.704      | 573.937 | 573.926        |       | 0.011  |
| 187.542 | 22.351      | 573.294 | 573.249        |       | 0.045  |
| 189.677 | 23.377      | 574.008 | 573.995        |       | 0.014  |
| 190.401 | 25.854      | 574.464 | 574.456        |       | 0.009  |
| 187.794 | 33.141      | 574.753 | 574.758        |       | -0.004 |

♀

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 12D MODEL - SURVEY CONFORMANCE REPORT: PAVEMENT  
 File: TOPSOIL CONFORMANCE REPORT SOUTH WETLANDS OCT23 DTG.rpt  
 Page: 9

| Point Desc | Point Chainage | Point Offset | Point Level | Design Level | Point Conformance |
|------------|----------------|--------------|-------------|--------------|-------------------|
|            | 192.652        | 0.936        | 575.011     | 575.043      | -0.032            |
|            | 194.520        | 1.276        | 574.962     | 574.977      | -0.015            |
|            | 194.630        | 3.030        | 574.665     | 574.629      | 0.036             |
|            | 196.102        | 4.429        | 574.468     | 574.464      | 0.004             |
|            | 195.513        | 8.897        | 573.300     | 573.272      | 0.027             |
|            | 193.316        | 16.798       | 573.261     | 573.264      | -0.004            |
|            | 193.977        | 18.303       | 573.795     | 573.785      | 0.010             |
|            | 194.193        | 18.367       | 573.851     | 573.849      | 0.002             |
|            | 193.616        | 22.425       | 574.410     | 574.438      | -0.028            |
|            | 192.893        | 29.006       | 574.811     | 574.799      | 0.011             |
|            | 192.937        | 31.543       | 574.986     | 574.972      | 0.014             |
|            | 198.154        | 1.584        | 574.954     | 574.961      | -0.007            |
|            | 198.422        | 3.061        | 574.656     | 574.662      | -0.006            |
|            | 199.334        | 6.555        | 574.120     | 574.078      | 0.042             |
|            | 200.381        | 14.171       | 573.302     | 573.290      | 0.012             |
|            | 201.131        | 16.039       | 573.872     | 573.843      | 0.029             |
|            | 200.248        | 16.821       | 573.771     | 573.739      | 0.032             |
|            | 202.588        | 17.125       | 574.351     | 574.343      | 0.009             |
|            | 202.750        | 22.672       | 574.693     | 574.688      | 0.005             |
|            | 201.785        | 25.669       | 574.722     | 574.720      | 0.002             |
|            | 203.586        | 14.305       | 574.207     | 574.205      | 0.002             |

| TOPSOIL CONFORMANCE REPORT SOUTH WETLANDS OCT23 DTG |        |         |         |       |
|---|--------|---------|---------|-------|
| 203.349   | 15.478 | 574.342 | 574.308 | 0.034 |
| 204.415   | 19.424 | 574.681 | 574.667 | 0.015 |
| 210.451   | 14.596 | 574.694 | 574.658 | 0.036 |

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 12D MODEL - SURVEY CONFORMANCE REPORT: PAVEMENT  
 File: TOPSOIL CONFORMANCE REPORT SOUTH WETLANDS OCT23 DTG.rpt  
 Page: 10  
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POINTS PROCESSED : 472

VERTICAL SUMMARY

|                      |   |        |          |
|----------------------|---|--------|----------|
| Points Tested        | : | 459    |          |
| Within Tolerance     | : | 430    | ( 93.7%) |
| Too High             | : | 29     | ( 6.3%)  |
| Too Low              | : | 0      | ( 0.0%)  |
| Maximum Conformance: |   | 0.095  |          |
| Minimum Conformance: |   | -0.046 |          |
| Average Conformance: |   | 0.017  |          |
| Standard Deviation : |   | 0.024  |          |

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Sch 2 2.2(a)(ii)

Signed: \_\_\_\_\_

Kerry Surveys P/L  
 Tue 23-Oct-2018 14:04:55

**From:** "Toomey, Richard" <Richard.Toomey@act.gov.au>  
**Sent:** 22/11/2018 11:54 AM  
**To:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Cc:** "Taylor, Nick" <Nick.Taylor@act.gov.au>; "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Subject:** RE: Isabella Weir and Wetlands [SEC=UNCLASSIFIED]

Thanks Stuart.

---

**From:** Oxborrow, Stuart  
**Sent:** Thursday, 22 November 2018 11:48 AM  
**To:** Toomey, Richard <Richard.Toomey@act.gov.au>  
**Cc:** Taylor, Nick <Nick.Taylor@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>  
**Subject:** RE: Isabella Weir and Wetlands [SEC=UNCLASSIFIED]

Hi Richard,

Completion of the wetlands civil works was awarded as of 31 October 2018. The wetland landscaping is not yet on consolidation.

Isabella Weir is full of water and therefore the wetlands have been inundated to the nominated levels also.

Let me know if you require anything further.

Regards

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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**From:** Toomey, Richard  
**Sent:** Thursday, 22 November 2018 10:26 AM  
**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>  
**Subject:** Isabella Weir and Wetlands [SEC=UNCLASSIFIED]

Hello Stuart,

In Nicks absence, are you able to provide an update as to the status of the Isabella Wetlands before 12pm today?

We have an ACTHW Project PCG at 1pm.

I would just like to know the status of the wetlands in relation to the completion of the works, consolidation and establishment (good bad or indifferent).

Perhaps dates as to the actual completion of the works and projected completion of the consolidation and establishment.

If you have any questions, please do not hesitate to contact me.

Regards,  
Richard.

**Richard Toomey | Senior Project Officer**  
**Phone [02 6207 3638](tel:0262073638) | Mobile [0466 403 641](tel:0466403641) | Email: [richard.toomey@act.gov.au](mailto:richard.toomey@act.gov.au)**

Infrastructure Finance and Capital Works | Chief Minister, Treasury and Economic Development Directorate | ACT Government



**From:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Sent:** 22/11/2018 10:30 AM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** RE: MILESTONE 3 Release [SEC=UNCLASSIFIED]

Thanks Nick,

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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**From:** Taylor, Nick  
**Sent:** Thursday, 22 November 2018 9:37 AM  
**To:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>  
**Cc:** McDonald, Andrew <Andrew.McDonald@act.gov.au>; Webber, Simon <Simon.Webber@act.gov.au>  
**Subject:** MILESTONE 3 Release [SEC=UNCLASSIFIED]

Afternoon Stuart/Mike

I've spoken to my Director Mr Andrew Parkinson (PSE) for the Isabella Weir/Wetland Project, and have consulted with my Senior Manager Simon Webber, and they have recommended we follow direction given in the Email dated 16/11/2018 from Mr Stuart Oxborrow TCCS (LDI) as this course of action is aligned with the GC21 contract for the Isabella Weir /Wetland Project. Please take this email as conformation for the PAP to award the release for the Completion of Milestone 3.

Also attached is an email sent by Darren Smith (Former PSE) around the completion amounts attached to individual components of the Isabella Weir/Wetlands which mentions the amount of money to be released on completion of the weir (Milestone 3) in the amount of \$100,000. Please be advised that Mr Andrew Parkinson the current (PSE) has authorised the release of the monies (\$100,000) for Milestone 3 only.

Regards Nick

Nick Taylor | Senior Project Officer | Civil Infrastructure  
**Phone 02 6207 0118** | Mobile 0451 449 331 | [Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)  
Infrastructure Finance Capital Works Chief Minister, Treasury and Economic Development Directorate ACT Government  
Level 2 Nature Conservation House, 186 Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**Subject:**FW: First Spilling of Isabella Weir

Regards

*Kim Harris*

Kim Harris | Assistant Director | Civil Infrastructure & Capital Works Branch  
Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email KimM.Harris@act.gov.au  
Infrastructure Finance and Capital Works | Chief Minister, Treasury and Economic Development Directorate | ACT Government  
Level 2 Nature Conservation House, Cnr Benjamin Way and Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)



Please consider the environment before printing this e-mail. **Be Green** - read on screen

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**From:** Oxborrow, Stuart  
**Sent:** Thursday, 29 November 2018 12:28 PM  
**To:** Sch 2 2.2(a)(ii) @pes.net.au  
**Cc:** Taylor, Nick <Nick.Taylor@act.gov.au>  
**Subject:** FW: First Spilling of Isabella Weir [SEC=UNCLASSIFIED]

Sch 2 2.2(a)(ii)

For your info, Sch 2 2.2(a) has explained the apparent lack of water flowing over the southern labyrinths.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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**From:** McGrath, Michael  
**Sent:** Thursday, 29 November 2018 12:10 PM  
**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>  
**Subject:** FW: First Spilling of Isabella Weir [SEC=UNCLASSIFIED]

Stuart

FYI also

Michael

**Michael McGrath | Senior Program Manager – Land Release Infrastructure**  
**Phone 02 6207 1491 | Mobile 0403 939 920 | Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)**  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** [Sch 2 2.2(a)(ii)] <[redacted]@guidelineact.com.au>  
**Sent:** Thursday, 29 November 2018 11:31 AM  
**To:** McGrath, Michael <Michael.McGrath@act.gov.au>  
**Subject:** RE: First Spilling of Isabella Weir [SEC=UNCLASSIFIED]

Hi Michael,

You're welcome for the photos.

I too like Stuart didn't notice the water at first passing over the southern labyrinth. The darker existing labyrinth and the taller aeration stones definitely highlight the water passing over the top of the centre third. I can assure everyone that even at low flows the water passing over the labyrinth full width.

Kind regards,

**Sch 2 2.2(a)(ii) | Project Manager**  
16B Bass Street, Queanbeyan NSW 2620  
PO Box 537, Queanbeyan NSW 2620  
E: [Sch 2 2.2(a)(ii)]@guidelineact.com.au  
M: [Sch 2 2.2(a)(ii)]



---

**From:** McGrath, Michael [mailto:Michael.McGrath@act.gov.au]  
**Sent:** Thursday, 29 November 2018 11:14 AM  
**To:** [Sch 2 2.2(a)(ii)]  
**Subject:** FW: First Spilling of Isabella Weir [SEC=UNCLASSIFIED]

[Sch 2 2.2(a)]

Thanks for the photos and videos. It is certainly a long way from when I was watching the water flowing over the model in Manly.

Thanks

Michael

**Michael McGrath | Senior Program Manager – Land Release Infrastructure**  
**Phone 02 6207 1491 | Mobile 0403 939 920 | Email: michael.mcgrath@act.gov.au**  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Oxborrow, Stuart  
**Sent:** Thursday, 29 November 2018 10:23 AM  
**To:** Taylor, Nick <Nick.Taylor@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>  
**Cc:** [Sch 2 2.2(a)(ii)] <[redacted]@pes.net.au>  
**Subject:** FW: First Spilling of Isabella Weir [SEC=UNCLASSIFIED]

Nick, Michael,

For your info. Interestingly, the water does not seem to be flowing over the southern labyrinths.

Regards,



**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Sch 2 2.2(a)(ii) @guidelineact.com.au  
**Sent:** Wednesday, 28 November 2018 4:37 PM  
**To:** Sch 2 2.2(a)(ii) @guidelineact.com.au; Sch 2 2.2(a)(ii) @guidelineact.com.au;  
Sch 2 2.2(a)(ii) @guidelineact.com.au; Sch 2 2.2(a)(ii) @guidelineact.com.au; Sch 2 2.2(a)(ii) @guidelineact.com.au; Sch 2 2.2(a)(ii) @guidelineact.com.au; Sch 2 2.2(a)(ii) @guidelineact.com.au; Oxborrow, Stuart  
<[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; Sch 2 2.2(a)(ii) @pes.net.au  
**Subject:** First Spilling of Isabella Weir

Hi All,

With just under 14mm since 7pm last night, the Isabella Weir topped out this morning.

Kind regards,

Sch 2 2.2(a)



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This email, and any attachments, may be confidential and also privileged. If you are not the intended recipient, please notify the sender and delete all copies of this transmission along with any attachments immediately. You should not copy or use it for any purpose, nor disclose its contents to any other person.

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**From:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Sent:** 29/11/2018 10:39 AM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Subject:** FW: Isabella Pond Wetlands Certificate Operation Acceptance (Civil & Hard Landscape) [SEC=UNCLASSIFIED]  
**Attachments:** Isabella Pond Wetlands Certificate Operational Acceptance (Civil & Hard ....pdf

Nick,

OA certificate of the wetlands civil works for your records.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
Capital Works, Transport Canberra and City Services Directorate | **ACT Government**  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Lambert, Antonie  
**Sent:** Thursday, 29 November 2018 9:53 AM  
**To:** Sch 2 2.2(a)(ii) @pes.net.au  
**Cc:** TCCS\_PC POSTDACOORD <TCCS.POSTDACOORD@act.gov.au>; Joseph, Gabriel <Gabriel.Joseph@act.gov.au>; Bell, Jeff <Jeff.Bell@act.gov.au>; Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Subject:** Isabella Pond Wetlands Certificate Operation Acceptance (Civil & Hard Landscape) [SEC=UNCLASSIFIED]

Hi 

Please find attached Isabella Pond Wetlands Certificate Operation Acceptance (Civil & Hard Landscape).

Kind regards

Antonie Lambert



## CERTIFICATE OF OPERATIONAL ACCEPTANCE

Developer/Client: Capital Works, TCCS  
 Address: 496 Northbourne Avenue, Dickson ACT 2602  
 Contact: Stuart Oxborrow  
 Project Title: **ISABELLA POND WETLANDS (Civil & Hard Landscape)**  
 Applicant: Professional Engineering Services Pty Limited  
 Address: Unit 3 6 St Georges Crescent, Drummoyne NSW 2047  
 Contact: **Sch 2 2.2(a)(ii)**  
 TCCS Project Lead: Anthonie Lambert

Dear **Sch 2 2.2(a)(ii)**

Date: 29/11/2018

On behalf of the Transport Canberra and City Services (TCCS) Directorate, this ***Certificate of Operational Acceptance*** for Civil & Hard Landscape is issued to confirm TCCS acceptance of the **Works**.

The defects liability period for the works commenced from the date of this certificate and is due for Final Acceptance in the week commencing a period of 12months from this time.

**Anthonie Lambert**

on behalf of

**Gabriel Joseph | Senior Manager Place Coordination  
 Place Coordination and Planning | Transport Canberra and City Services | ACT Government**

Note that the definition of the terms 'Operational Acceptance', 'Consultant' and 'Works' shall be the same as that given in TCCS Reference Document 7.

### Attachments:

Attachment A: List of Outstanding Works  
 Attachment B: Conditions for Final Acceptance



## ATTACHMENT A

## LIST OF OUTSTANDING WORKS

Nil

## ATTACHMENT B

## CONDITIONS FOR FINAL ACCEPTANCE

Note that the issue of a *Certificate of Final Acceptance* at the completion of the defects liability period requires the following:

1. Satisfactory submission of WAE Drawings and test certificates which were not included in the *Certificate of Operational Acceptance* or for any rectification works carried out during the defects liability period.
2. Certification and evidence by the Consultant that the balance pipes and pits were regularly monitored and satisfactorily maintained during the defects liability period and are in good working order.
3. Certification and evidence by the Consultant that the sediment basin were regularly monitored and satisfactorily maintained during the defects liability period and are in good working order.
4. Certification and evidence by the Consultant that the outlet control pits were regularly monitored and satisfactorily maintained during the defects liability period and are in good working order.
5. Certification and evidence by the Consultant that all the backfilled trenches were regularly monitored for any settlement or defects and made good if necessary during the defects liability period.
6. All Outstanding Works listed in Attachment A are completed to the satisfaction of Asset Acceptance.

**From:** "Sch 2 2.2(a)(ii) [redacted]@guidelineact.com.au"  
**Sent:** 30/11/2018 1:43 AM  
**To:** "Sch 2 2.2(a)(ii) [redacted]@pes.net.au"  
**Cc:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** RE: Isabella: IWU NCA - Rip Rap Grading - PAP Response  
**Attachments:** Isabella: IWU NCA - Rip Rap Grading - PAP Response, IMG\_2642.JPG, IMG\_2706.JPG

Hi [redacted]

Attached is the NCA response.

Also attached are a few of my pictures of the area taking in early November.

Kind regards, [redacted]

---

**From:** [redacted]@pes.net.au]  
**Sent:** Friday, 30 November 2018 11:37 AM  
**To:** [redacted]  
**Cc:** 'Oxborrow, Stuart'; 'Taylor, Nick'  
**Subject:** RE: Isabella: IWU NCA - Rip Rap Grading - PAP Response

Hi [redacted]

I want to close this matter out part of the Meeting Minutes and NCA. It was agreed on 24 Oct 2018 once the rectification completed, we supposed to send the evidence of the finished works to [redacted]. I cannot find the photos or email from Phil to me on this non-conformance. Can you please send me some photos as evidence of the rectification works carried out on 30 Oct 2018?

Thanks

[redacted]  
 Principal's Authorised Person (PAP)  
 Professional Engineering Service Pty Limited ACN 057 633 897  
 Mobile - [redacted]




---

**From:** [redacted]@pes.net.au [redacted]@pes.net.au>  
**Sent:** Thursday, 25 October 2018 11:15 AM  
**To:** [redacted]@guidelineact.com.au>  
**Cc:** [redacted]@guidelineact.com.au>; [redacted]@guidelineact.com.au>; [redacted]@smec.com>; [redacted]@smec.com>; 'Taylor, Nick' <Nick.Taylor@act.gov.au>; 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>  
**Subject:** Isabella: IWU NCA - Rip Rap Grading - PAP Response

[redacted]

Please find attached my response to the above NCA. You and I will need to review the opposite left hand bank during and when completed using the same principles.

Regards

Sch 2 2.2(a)(ii)

Professional Engineering Service Pty Limited ACN 057 633 897

Acting in the capacity of the Territory's Principal's Authorised Person (PAP) Isabella Weir and Wetlands Project

Mobile Sch 2 2.2(a)(ii)

---

**From:** Sch 2 2.2(a)(ii) <[redacted]@guidelineact.com.au>

**Sent:** Thursday, 18 October 2018 12:21 PM

**To:** Sch 2 2.2(a)(ii)@pes.net.au

**Cc:** Sch 2 2.2(a)(ii) <[redacted]@guidelineact.com.au>

**Subject:** NCA - Rip Rap

Hi [redacted],

Please see attached the NCA for the rip rap for your review.

Kind regards,

[redacted]

Sch 2 2.2(a)(ii) | **Project Manager | Isabella Weir Upgrade**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: Sch 2 2.2(a)(ii)@guidelineact.com.au

M: Sch 2 2.2(a)(ii)





**From:** "Sch 2 2.2(a)(ii)" <[redacted]@pes.net.au>  
**Sent:** 25/10/2018 12:15 AM  
**To:** "Sch 2 2.2(a)(ii)" <[redacted]@guidelineact.com.au>  
**Cc:** "Sch 2 2.2(a)(ii)" <[redacted]@guidelineact.com.au>; "Sch 2 2.2(a)(ii)" <[redacted]@guidelineact.com.au>; "Sch 2 2.2(a)(ii)" <[redacted]@smec.com>; "Sch 2 2.2(a)(ii)" <[redacted]@smec.com>; "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Subject:** Isabella: IWU NCA - Rip Rap Grading - PAP Response  
**Attachments:** right bank rip rap fix (left mark-up 1 of 2).jpg, right bank rip rap fix (right mark-up 2 of 2).jpg, NCA Rip Rap - PAP Response.pdf

Sch 2 2.2(a)

Please find attached my response to the above NCA. You and I will need to review the opposite left hand bank during and when completed using the same principles.

Regards

Sch 2 2.2(a)(ii)

Professional Engineering Service Pty Limited ACN 057 633 897  
 Acting in the capacity of the Territory's Principal's Authorised Person (PAP) Isabella Weir and Wetlands Project  
 Mobile [redacted] Sch 2 2.2(a)(ii)

---

**From:** [redacted] Sch 2 2.2(a)(ii) <[redacted]@guidelineact.com.au>  
**Sent:** Thursday, 18 October 2018 12:21 PM  
**To:** [redacted] Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>  
**Cc:** [redacted] Sch 2 2.2(a)(ii) <[redacted]@guidelineact.com.au>  
**Subject:** NCA - Rip Rap

Hi Phil,

Please see attached the NCA for the rip rap for your review.

Kind regards,

Sch 2 2.2(a)(ii) | **Project Manager | Isabella Weir Upgrade**

16B Bass Street, Queanbeyan NSW 2620

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M: [redacted] Sch 2 2.2(a)(ii)











7:47 25/OCT/2018

**NON CONFORMANCE / CORRECTIVE ACTION (NCA) REPORT**

|   |  |  |  |   |
|---|--|--|--|---|
| PROJECT NO: 616<br>PROJECT<br>NAME: Isabella Weir<br>Upgrade  | NCA<br>NO:<br>TBC                            | ACTION OFFICER<br><br>Sch 2 2.2(a)(ii) | DATE RESPONSE<br>DUE<br>23-10-18   | SEVERITY <u>1</u> 2 3<br>1. Least severe - 3. Most Severe |
| Mark <input checked="" type="checkbox"/> one or more of the following (and nominate the relevant BMS Procedure)   |  |  |  |   |
| <input type="checkbox"/> WHS Issue  | <input checked="" type="checkbox"/> QA Issue | <input type="checkbox"/> BMS Issue     | <input checked="" type="checkbox"/> Nonconforming or Rework<br>Correct. Action | <input type="checkbox"/> Authority Infringement           |
| <input type="checkbox"/> Enviro Issue   | <input type="checkbox"/> Contract Issue      | <input type="checkbox"/> Complaint     |  | <input type="checkbox"/> Authority Warning                |
| <u>Issue</u><br>RFI 035 was raised on the 20/10/2017 and approved to reuse site excavated rock to be incorporated into Rip Rap DN450. The rock has been screened onsite, with a small percentage of rock by mass <300mm being used.   |  |  |  |   |
| Raised By:<br>Sch 2 2.2(a)(ii)  | Position:<br>Project Manager                 | Sch 2 2.2(a)(ii)                       | Date:<br>18-10-2018  |   |
| <b>ACTION OFFICER – Cause</b><br>The sieve used onsite was 300 x 100mm, thus retaining some rock <300mm.  |  |  |  |   |
| Lot Description: Wet Well Steel works   |  |  | Section/Lot Number:  |   |
| <b>ACTION OFFICER – Immediate Action</b><br>The rock used onsite ranges from 100 – 1000mm with the vast majority >300mm. It is proposed that the insitu rock is fit for purpose. (See attached photos).<br>If preferred by PAP/SMEC, larger rocks (>500mm) can be specifically placed in the lower 2m for the final 15m of the embankment area as shown attached. Also shown is the additional rock to be placed around the exposed concrete protection at the gas main. (See attached Sketch). |  |  |  |   |
| Estimated Cost \$ 0.00  |  |  |  |   |
| Is concurrence from the client required? <u>Yes</u> / No. If yes, provide details of concurrence  |  |  |  |   |
| Is a Hold Point Release required before covering the works? <u>Yes</u> / No. If yes, provide HP number.   |  |  |  |   |
| <b>ACTION OFFICER – Reoccurrence prevention</b><br>The sieve of the excavator bucket when processing rock is to be 300 x 300mm to minimise any rock <300mm being retained.  |  |  |  |   |
| Action Office Name:<br>Sch 2 2.2(a)(ii)   | Sch 2 2.2(a)(ii)                             | Date:<br>18-10-2018                    |  |   |
| <b>PROJECT MANAGER / GENERAL MANAGER – Comment</b>  |  |  |  |   |
| Actual Cost \$  |  |  |  |   |
| Manager Name:   | Sign:  | Date:                                  |  |   |
| <b>SYSTEMS MANAGER – Comments</b>   |  |  |  |   |
| Is there a requirement for a RSI? Yes / No  |  |  |  |   |
| Systems Manager Name:   | Sign:  | Date:                                  |  |   |
| NCA Report cleared by <b>MANAGING DIRECTOR</b>  |  |  |  |   |
| Manager Director Name:  | Sign:  | Date:                                  |  |   |

I refer to meeting Nick Taylor, Sch 2 2.2(a)(ii) on the afternoon of 24 October 2018.

Sch 2 2.2(a)(ii) formal advice was:

"

1. SMEC considers that the rip rap as placed does not meet specification. This is from visual inspections rather than an analysis of the grading.

2. The rip rap as placed is likely to suffer some damage in large floods once the weir is operational and some maintenance would be expected in those situations.

3. The proposed compromise solution to the problem is:

a. the PAP and Contractor should identify those areas where there is an obvious large amount of smaller rocks on the surface (roughly three areas on the northern bank).

b. Place additional larger rocks (say greater than 400 mm) into the top layer to aid in stabilising those areas.

4. SMEC has agreed that this is an acceptable resolution.

"

This process was agreed PAP/CAP at the meeting 24 October 2018 as above.

Attached are two photos showing the areas which are to be treated as per Item 3b above for the right bank rip rap. Please proceed with this remedial action.

A similar process is to occur for the opposite section of the left bank rip rap area.

## Sch 2 2.2(a)(ii)

Sch 2 2.2(a)(ii) - PAP, 25 October 2018





**From:** "Sch 2 2.2(a)(ii)" <[redacted]@guidelineact.com.au>  
**Sent:** 13/12/2018 5:06 AM  
**To:** "Sch 2 2.2(a)(ii)" <[redacted]@pes.net.au>  
**Cc:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** Consolidation Program and Methodology, Isabella Weir  
**Attachments:** Consolidation Program and Methodology.pdf, Consolidation\_Wetlands.pdf

Hi [redacted]

Please see attached the proposed consolidation plan for the wetlands and dry land grassing.

Please review and we can discuss tomorrow at 11.30am at Belconnen should you have any queries/ammedments.

Kind regards,

Matt.

**Sch 2 2.2(a)(ii) | Project Manager**

16B Bass Street, Queanbeyan NSW 2620

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M: [redacted]





## Isabella Pond and Wetlands Consolidation Program and Methodology

### December 2018, Guideline ACT

#### Key Personnel:

- Developer Representative: Nick Taylor (ACT Gov)
- Asset Acceptance Representative: Joel Kelly (TCCS)
- Coordinator: Sch 2 2.2(a)(ii) (PES)
- Consultant: Sch 2 2.2(a)(ii) (Envirolinks)
- Contractors Repetitive: Sch 2 2.2(a)(ii) (Guideline ACT)

#### Purpose:

To place the Isabella Wetlands and Dryland Grassing onto Consolidation and Handover After 26wks.

#### Methodology:

Due to the vast size of the combined wetlands, it is also proposed that the Northern Wetlands become one Work Lot and the Southern Wetlands become a second Work Lot.

All documentation submitted to date for the North and Southern Wetland includes:

- 5.2.2 - Certificate of Design Acceptance by Coordinator (Sch 2 2.2(a)(ii) )
- 5.2.6 – Works as Executed Quality Records by Coordinator (Sch 2 2.2(a)(ii) )
- 5.2.4 – Maintenance Programme by Coordinator (Sch 2 2.2(a)(ii) )

#### South Wetlands:

The southern wetlands water level is at approx. RL 574.60, the stop logs of the main weir are to be removed in January to RL 574.20. Weed Control is to continue following the lowering of the water to RL 574.20. The plant numbers are to be confirmed by Sch 2 2.2(a)(ii) and replanting is to continue within approximately 1 week of the weed management.

Upon completing all replanting of the southern wetlands, a site inspection is to take place and the Certification, Site Inspection Report and List of Defects Developed are to be submitted within 5days.

- 5.2.1 - Certification by the Consultant (Sch 2 2.2(a)(ii) )
- 5.2.3 - Site Inspection Report by Coordinator (Sch 2 2.2(a)(ii) )
- 5.2.3 - List of Defects (Sch 2 2.2(a)(ii) )

As per the Reference Document 10, the Complete Submission will start the Consolidation Period for the Southern Wetlands.

Regular Site Inspections are planned for 1 monthly interval until 8 weeks from the Handover Date. Any require replanting is to be determined and replanting is to be completed no later than 6 weeks out from Handover. Weed management and replanting is to continue as per the maintenance programme.

At 2 weeks prior to Handover, the Certification by the **Sch 2 2.2(a)(ii)** is to be submitted, and **Sch 2 2.2(a)(ii)** is to request the Certificate of Soft Landscaping from Joel Kelly. All documents required for the submission include:

- AA-SCS-11 Cover Sheet for Soft Landscaping Submission
- 6.1 – Certification by Consultant
- 6.2 – List of Defects
- 6.3 – Updated Works as Executed Quality Records (where necessary)

Following the receipt of the above documents, Joel Kelly will coordinate a joint Inspection with **Sch 2 2.2(a)(ii)**, Nick Taylor and **Sch 2 2.2(a)(ii)**. The successful inspection will result in Joel Kelly issuing the Certificate of Soft Landscaping and mark the complete Handover of the Southern Wetlands. This Handover is programmed for **August 2019**.

#### **Northern Wetlands:**

The northern wetlands water level is also at approx. RL 574.60, the stop logs of the main weir are to be removed in January to RL 574.20. Weed Control is to continue following the completed weeding of the Southern Wetlands. Due to the size of the Northern wetlands, it is expected that it will take 2 weeks to complete weed management of the northern wetlands. The plant numbers of the Northern side are again to be confirmed by **Sch 2 2.2(a)(ii)** and replanting is to continue following closely behind the weed management crew.

**Please Note: North of Charleston St, the construction site for Healthy Water has been affected by flash flooding. During each flood event to date, silt, topsoil and construction materials are deposited into the northern wetlands. Guideline will locally open up the areas around each plant from the 11<sup>th</sup> December 2018. Should any future flood events result in additional silt and debris, detailed silt removal and clean-up is to be at the direction of the Coordinator, **Sch 2 2.2(a)(ii)**.**

Upon completing all replanting of the Northern wetlands, a site inspection is to take place and the Certification, Site Inspection Report and List of Defects Developed are to be submitted within 5days.

- 5.2.1 - Certification by the Consultant (**Sch 2 2.2(a)(ii)**)
- 5.2.3 - Site Inspection Report by Coordinator (**Sch 2 2.2(a)(ii)**)
- 5.2.3 - List of Defects (**Sch 2 2.2(a)(ii)**)

As per the Reference Document 10, the Complete Submission will start the Consolidation Period for the Northern Wetlands.

Regular Site Inspections are planned for 1 monthly interval until 8 weeks from the Handover Date. Any require replanting is to be determined and replanting is to be completed no later than 6 weeks out from Handover. Weed management and replanting is to continue as per the maintenance programme.

At 2 weeks prior to Handover, the Certification by the Consultant is to be submitted, and the coordinator to request the Certificate of Soft Landscaping. All documents required for the submission include:

- AA-SCS-11 Cover Sheet for Soft Landscaping Submission

- 6.1 – Certification by Consultant
- 6.2 – List of Defects
- 6.3 – Updated Works as Executed Quality Records (where necessary)

Following the receipt of the above documents, Joel Kelly will coordinate a joint Inspection with [Sch 2 2.2(a)(ii)], Nick Taylor and [Sch 2 2.2(a)(ii)]. The successful inspection will result in Joel Kelly issuing the Certificate of Soft Landscaping and mark the complete Handover of the Northern Wetlands. This Handover is programmed for **September 2019**.

#### **Dryland Grassing:**

The dryland grassing has been applied to the site from September to November 2018. Overall the areas of the site have taken well. It is expected that during the summer months, the grass will stall in regard to taking. Any future bitumen and straw mulching will be conducted in February 2019.

All dry land grassing is to be maintained between 75-150mm in height. Mowing is to be completed regularly or as directed by [Sch 2 2.2(a)(ii)].

Once [Sch 2 2.2(a)(ii)] is satisfied that the grassing is ready to be placed onto consolidation, he is to request an inspection. The target for commencement of consolidation of all dryland grassing is March 2019. The Technical Specification (Cl 9.11.3, page 86) for Isabella Weir summarises the documents required to accompany the request for inspection as:

- Site Inspection Report and Defect List by [Sch 2 2.2(a)(ii)]
- Consolidation Plan by [Sch 2 2.2(a)(ii)]
- Works as Executed Quality Records
- Compliance Certification by [Sch 2 2.2(a)(ii)]

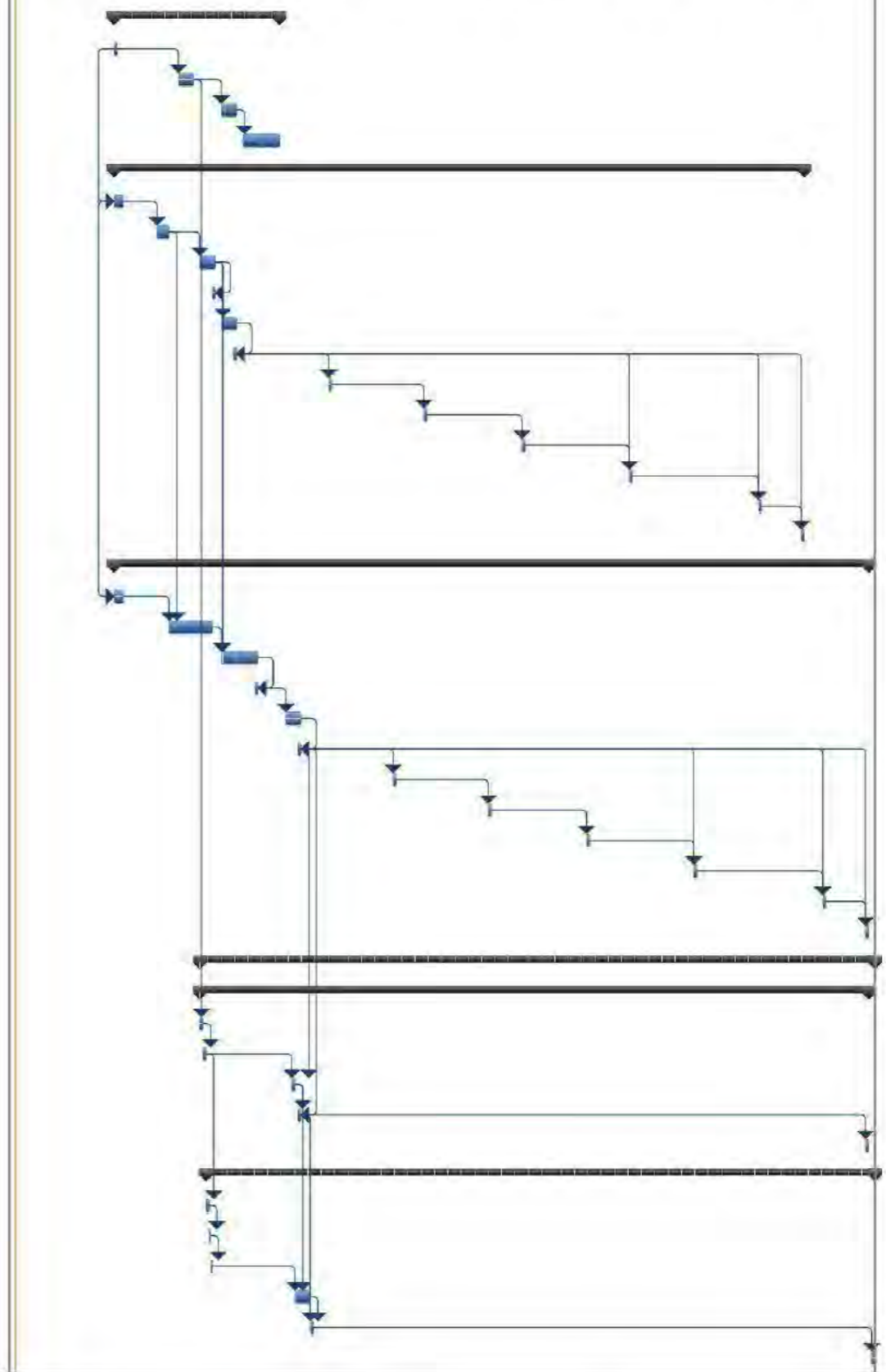
Once successful on Consolidation maintenance will continue as per the Consolidation Plan.

As per the wetlands, the dryland grassing will require the same conditions of Handover documentation. At 2 weeks prior to Handover, the Certification by the Consultant is to be submitted, and the coordinator to request the Certificate of Soft Landscaping. All documents required for the submission include:

- AA-SCS-11 Cover Sheet for Soft Landscaping Submission
- 6.1 – Certification by Consultant
- 6.2 – List of Defects
- 6.3 – Updated Works as Executed Quality Records (where necessary)

Following the receipt of the above documents, Joel Kelly will coordinate a joint Inspection with [Sch 2 2.2(a)(ii)], Nick Taylor and [Sch 2 2.2(a)(ii)]. The successful inspection will result in Joel Kelly issuing the Certificate of Soft Landscaping and mark the complete Handover of the Dryland Grassing. This Handover is programmed for **September 2019**.

| ID | Task Mode | Task Name  | Duration        | Start               | Finish              | 11 November |       | 1 January |      | 21 February |       | 11 April |      | 1 June |       | 21 July |       | 11 September |      |
|----|-----------|--|-----------------|---------------------|---------------------|-------------|-------|-----------|------|-------------|-------|----------|------|--------|-------|---------|-------|--------------|------|
|    |           |  |                 |                     |                     | 5/11        | 26/11 | 17/12     | 7/01 | 28/01       | 18/02 | 11/03    | 1/04 | 22/04  | 13/05 | 3/06    | 24/06 | 15/07        | 5/08 |
| 1  |           |  |                 |                     |                     |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 2  |           | <b>Weir</b>  | <b>40 days</b>  | <b>Mon 14/01/19</b> | <b>Fri 8/03/19</b>  |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 3  |           | Remove Stop Logs To RL 574.20  | 1 day           | Mon 14/01/19        | Mon 14/01/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 4  |           | Open Valve to RL 570.68  | 5 days          | Mon 4/02/19         | Fri 8/02/19         |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 5  |           | Defect Repairs at Weir   | 5 days          | Mon 18/02/19        | Fri 22/02/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 6  |           | Close Valves to RL 574.20  | 10 days         | Mon 25/02/19        | Fri 8/03/19         |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 7  |           | <b>Southern Wetlands</b>   | <b>161 days</b> | <b>Mon 14/01/19</b> | <b>Mon 26/08/19</b> |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 8  |           | Lower Water Level to RL 574.20   | 3 days          | Mon 14/01/19        | Wed 16/01/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 9  |           | Weed Management  | 4 days          | Mon 28/01/19        | Thu 31/01/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 10 |           | Replanting as Req.   | 5 days          | Mon 11/02/19        | Fri 15/02/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 11 |           | Inspection (NT, MT, SP, RP, MW)  | 1 day           | Fri 15/02/19        | Fri 15/02/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 12 |           | Certification by Consultant (RP)   | 5 days          | Mon 18/02/19        | Fri 22/02/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 13 |           | Consolidation Inspection (Start of Consolidation) (NT, MT, SP, RP, JK)     | 1 day           | Fri 22/02/19        | Fri 22/02/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 14 |           | 1 Consolidation Insepction (MT, SP, RP)                                    | 1 day           | Mon 25/03/19        | Mon 25/03/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 15 |           | 2 Consolidation Insepction (MT, SP, RP)                                    | 1 day           | Thu 25/04/19        | Thu 25/04/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 16 |           | 3 Consolidation Insepction (MT, SP, RP)                                    | 1 day           | Mon 27/05/19        | Mon 27/05/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 17 |           | Consolidation Insepction (8wk prior to Handover) (NT, MT, SP, RP, MW)      | 1 day           | Mon 1/07/19         | Mon 1/07/19         |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 18 |           | Certification by Consultant (RP, Submit 2wks prior to Handover)            | 1 day           | Mon 12/08/19        | Mon 12/08/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 19 |           | Consolidation Inspection and Handover (NT, MT, SP, RP, JK)                 | 1 day           | Mon 26/08/19        | Mon 26/08/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 20 |           | <b>Northern Wetlands</b>   | <b>176 days</b> | <b>Mon 14/01/19</b> | <b>Mon 16/09/19</b> |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 21 |           | Lower Water Level to RL 574.20   | 3 days          | Mon 14/01/19        | Wed 16/01/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 22 |           | Weed Management  | 10 days         | Fri 1/02/19         | Thu 14/02/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 23 |           | Replanting as Req.   | 10 days         | Mon 18/02/19        | Fri 1/03/19         |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 24 |           | Inspection (NT, MT, SP, RP, MW)  | 1 day           | Fri 1/03/19         | Fri 1/03/19         |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 25 |           | Certification by Consultant (RP)   | 5 days          | Mon 11/03/19        | Fri 15/03/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 26 |           | Consolidation Inspection (Start of Consolidation) (NT, MT, SP, RP, JK, MW) | 1 day           | Fri 15/03/19        | Fri 15/03/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 27 |           | 1 Consolidation Insepction (MT, SP, RP)                                    | 1 day           | Mon 15/04/19        | Mon 15/04/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 28 |           | 2 Consolidation Insepction (MT, SP, RP)                                    | 1 day           | Thu 16/05/19        | Thu 16/05/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 29 |           | 3 Consolidation Insepction (MT, SP, RP)                                    | 1 day           | Mon 17/06/19        | Mon 17/06/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 30 |           | Consolidation Insepction (8wk prior to Handover) (NT, MT, SP, RP, MW)      | 1 day           | Mon 22/07/19        | Mon 22/07/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 31 |           | Certification by Consultant (RP, Submit 2wks prior to Handover)            | 1 day           | Mon 2/09/19         | Mon 2/09/19         |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 32 |           | Consolidation Inspection and Handover (NT, MT, SP, RP, JK)                 | 1 day           | Mon 16/09/19        | Mon 16/09/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 33 |           | <b>Drylands Grassing</b>   | <b>158 days</b> | <b>Mon 11/02/19</b> | <b>Wed 18/09/19</b> |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 34 |           | <b>Weir Area</b>   | <b>156 days</b> | <b>Mon 11/02/19</b> | <b>Mon 16/09/19</b> |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 35 |           | North Abutment (Bit+Straw Mulch)   | 1 day           | Mon 11/02/19        | Mon 11/02/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 36 |           | South Abutment (Bit+Straw Mulch)   | 1 day           | Tue 12/02/19        | Tue 12/02/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 37 |           | Mow and Weed Management  | 1 day           | Wed 13/03/19        | Wed 13/03/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 38 |           | Consolidation Inspection and start (MT, NT, SP, RP, JK)                    | 1 day           | Fri 15/03/19        | Fri 15/03/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 39 |           | Consolidation Handover (MT, NT, SP, RP, JK)                                | 1 day           | Mon 16/09/19        | Mon 16/09/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 40 |           | <b>Wetlands Areas</b>  | <b>156 days</b> | <b>Wed 13/02/19</b> | <b>Wed 18/09/19</b> |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 41 |           | Stockpile Area (Bit+Straw Mulch)   | 1 day           | Wed 13/02/19        | Wed 13/02/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 42 |           | North Wetlands (Bit+Straw Mulch)   | 0.5 days        | Thu 14/02/19        | Thu 14/02/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 43 |           | South Wetlands (Bit+Straw Mulch)   | 0.5 days        | Thu 14/02/19        | Thu 14/02/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 44 |           | Mow and Weed Management  | 3 days          | Thu 14/03/19        | Mon 18/03/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 45 |           | Consolidation Inspection and start (MT, NT, SP, RP, JK)                    | 1 day           | Tue 19/03/19        | Tue 19/03/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |
| 46 |           | Consolidation Handover (MT, NT, SP, RP, JK)                                | 1 day           | Wed 18/09/19        | Wed 18/09/19        |             |       |           |      |             |       |          |      |        |       |         |       |              |      |



Project: Consolidation\_Wetlands  
Date: Thu 13/12/18

|           |  |                    |  |                    |  |                       |  |          |
|-----------|--|--------------------|--|--------------------|--|-----------------------|--|----------|
| Task      |  | Project Summary    |  | Inactive Milestone |  | Manual Summary Rollup |  | Deadline |
| Split     |  | External Tasks     |  | Inactive Summary   |  | Manual Summary        |  | Progress |
| Milestone |  | External Milestone |  | Manual Task        |  | Start-only            |  |          |
| Summary   |  | Inactive Task      |  | Duration-only      |  | Finish-only           |  |          |

**From:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Sent:** 13/12/2018 4:23 PM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Subject:** FW: Completion Undertaking. Isabella Weir [SEC=UNCLASSIFIED]

Nick,

Can you please advise [redacted] that GLA's proposal to release the existing Completion Undertaking in return for a new Undertaking of 15% of the original value is acceptable.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** McGrath, Michael  
**Sent:** Thursday, 13 December 2018 2:34 PM  
**To:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Subject:** RE: Completion Undertaking. Isabella Weir [SEC=UNCLASSIFIED]

Stuart

As this is consistent with previously agreed positions proposed by IFCW senior management I am happy for the requested Completion Undertaking to be released.

Regards

Michael

**Michael McGrath | Senior Program Manager – Land Release Infrastructure**  
**Phone 02 6207 1491** | Mobile 0403 939 920 | Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Oxborrow, Stuart  
**Sent:** Thursday, 13 December 2018 2:29 PM  
**To:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>  
**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Subject:** FW: Completion Undertaking. Isabella Weir [SEC=UNCLASSIFIED]

Michael,

Please see attached letter from Guideline. This is in line with the agreement reached in yesterday's site meeting. As outlined in my email to [redacted] yesterday, Clause 37.3 allow for the proportional release of the Completion Undertaken based on Completion of the various project Milestones.

If you have no objections, Nick can request Eva to arrange for the release of the original Completion Undertaking and accept the new reduced (15%) Undertaking.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Sch 2 2.2(a)(ii) [redacted]@guidelineact.com.au]  
**Sent:** Thursday, 13 December 2018 11:20 AM  
**To:** Sch 2 2.2(a)(ii) [redacted]@pes.net.au>  
**Cc:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; Nick Zardo <[Nick.Zardo@guidelineact.com.au](mailto:Nick.Zardo@guidelineact.com.au)>  
**Subject:** RE: Completion Undertaking. Isabella Weir

Hi Sch 2 2.2(a)(ii) [redacted]

As discussed and agreed in yesterday's meeting at Belconnen, please see attached confirmation of the reduction of Completion Undertaking for Isabella Weir.

It is proposed that the 15% Completion Undertaking be issued at 1pm today at Belconnen in receipt of the exiting full Completion Undertaking.

Kind regards, Sch 2 2.2(a)(ii) [redacted].

Sch 2 2.2(a)(ii) | **Project Manager**  
 16B Bass Street, Queanbeyan NSW 2620  
 PO Box 537, Queanbeyan NSW 2620  
 E: Sch 2 2.2(a)(ii) [redacted]@guidelineact.com.au  
 M: Sch 2 2.2(a)(ii) [redacted]




---

**From:** Sch 2 2.2(a)(ii) [redacted]@pes.net.au]  
**Sent:** Thursday, 6 December 2018 10:38 AM  
**To:** Sch 2 2.2(a)(ii) [redacted]  
**Cc:** 'Oxborrow, Stuart'  
**Subject:** RE: Completion Undertaking.

Hi Sch 2 2.2(a)(ii) [redacted]

You should have the response by 3:30pm today.

Thanks

Sch 2 2.2(a)(ii) [redacted]  
 Principal's Authorised Person (PAP)  
 Professional Engineering Service Pty Limited ACN 057 633 897  
 Mobile - Sch 2 2.2(a)(ii) [redacted]




---

**From:** Sch 2 2.2(a)(ii) [redacted]@guidelineact.com.au>  
**Sent:** Thursday, 6 December 2018 9:37 AM

To: [Sch 2 2.2(a)(ii)]@pes.net.au>  
Cc: 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>  
Subject: Completion Undertaking.

Hi [Sch 2 2.2(a)(ii)]

As discussed, we await your letter regarding partial return of the Completion Undertaking. Guideline and myself strongly believe the full Completion Undertaking should be returned as the project completion has been achieved as laid out in Milestone 3 and 5.

Please issue all supporting information for the claim that only 80% of the \$489,421.98 is to be returned along with the response letter.

Kind regards,

[Sch 2 2.2(a)(ii)]

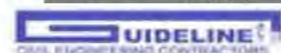
**Sch 2 2.2(a)(ii) | Project Manager**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [Sch 2 2.2(a)(ii)]@guidelineact.com.au

M: [Sch 2 2.2(a)(ii)]



---

**From:** [Sch 2 2.2(a)(ii)]  
**Sent:** Monday, 3 December 2018 5:10 PM  
**To:** [Sch 2 2.2(a)(ii)]  
**Subject:** Phone Message response, Completion Undertaking.

Hi [Sch 2 2.2(a)(ii)]

Thanks for your detailed phone message.

In regards to the security due for release, can you please submit your proposal? Anything less than the requested Completion Undertaking of \$489,421.98 will be challenged by GLA. There still remains a post completion undertaking of \$289,421.98 acting as security for the next period of the project.

In regards to the Wetlands Consolidation, please forward me a list of any details that have not already been submitted for the Soft Landscaping Operational Acceptance.

Kind regards,  
Matt.

**Sch 2 2.2(a)(ii) | Project Manager**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [Sch 2 2.2(a)(ii)]@guidelineact.com.au

M: [Sch 2 2.2(a)(ii)]



**From:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Sent:** 18/12/2018 4:53 PM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Subject:** RE: Consolidation Program and Methodology, Isabella Weir [SEC=UNCLASSIFIED]

Thanks Nick,

Can you please also send through the attachment to Envirolinks' email below – there seems to be one referenced.

Regards,

Stuart

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: stuart.oxborrow@act.gov.au**  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Taylor, Nick  
**Sent:** Tuesday, 18 December 2018 3:25 PM  
**To:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Cc:** McGrath, Michael <Michael.McGrath@act.gov.au>  
**Subject:** RE: Consolidation Program and Methodology, Isabella Weir [SEC=UNCLASSIFIED]

Afternoon Gentlemen

After the walkabout on Monday with Sch 2 2.2(a)(ii) and Joel, I believe that the comments that we all made have been captured (below) very well, especially around irrigation and watering of the plants. There seems to be no significant improvement with the weed control, irrigation or replanting. It's noticeable that fortnightly visits are not enough, and resource is obviously hard to come by, at this time of year to facilitate the requirements for the Isabella Wetlands to be placed on consolidation. At this stage we are no closer to placing the wetlands on consolidation. If Guideline are unable to protect the works from other events, irrigate regularly and control weed infestation, then we may struggle further to attain the goal of consolidation in a timely manner.

Regards Nick

---

**From:** Sch 2 2.2(a)(ii) <[redacted]@envirolinks.com.au>  
**Sent:** Tuesday, 18 December 2018 12:08 PM  
**To:** Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>  
**Cc:** Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>; Taylor, Nick <Nick.Taylor@act.gov.au>  
**Subject:** RE: Consolidation Program and Methodology, Isabella Weir

Hi [redacted]

I have attached a few things. Firstly a mark up with comments of the provided program and methodology. A plan mark up of problem areas for plant density and an approximate number of plants required for re-plants. This number is not to be used as a final planting number, it is simply a guide to help plant procurement. The total number of plants is unclear due to the weeds and water level. I have also summarized yesterdays meeting below. Feel free to comment or add any points that I may have missed.

Weed management:

- The weed spraying occurring (weekly?) is to continue.
- The dense thatching in some areas that the dead weeds have created needs be physically removed or brush cut down, to ensure that any new weeds growing underneath are actually being hit by the sprayers.



- The physical removal of the weeds will make identifying bare patches in the designated plantings more obvious and aid in meeting densities for re-plants.
- Action on larger weeds is to be immediate to avoid the weeds producing flowers and seeding, therefore spreading further.
- Once the water level is dropped, weeds will likely begin to sprout again and need to be carefully managed to avoid further weed issues.
- Weeds suppress the growth of the native species we are planting, reducing/removing the weeds gives the re-plants the best chance at survival.

#### Water level management:

- One of Joel's main comments was regarding the water level of the northern wetland.
- Some plants that survived establishment and thrived due to the amount of water in the system, however the constantly high water level does not allow for those plants that struggled through establishment to survive as they have drowned due to being too small.
- The banks in some areas are bare due to plant loss. While the basin of the wetland is constantly wet, the edges and peninsulas are not getting watered and therefore losing plants.
- Controlling the water level during the re-planting phase is essential. If water is just left to fill the wetlands again, the new plants will likely drown. The water level will need to be carefully controlled with pumps. If more water is required, pump it from the pond, if less is required remove it. The plants can tolerate being inundated for 2-3 days, however if left underwater for 1 week or longer you risk losing plants to drowning.
- Joel also made the comment that before the ponds and weir are emptied, there needs to be an irrigation program and system in place to irrigate the wetlands immediately. Failure to irrigate the re-plants and wetlands promptly and regularly will likely lead to further plant deaths and weed growth as the water level at this point has also suppressed the weeds from spreading across the basin of the wetlands.
- The southern wetland should be carefully monitored as well, as it does not receive as much incoming water as the northern side.

#### Program

- Mid January water level drop and weeding means February planting. As Joel stated, planting in February is not ideal. However if the irrigation system is in place and effective then should hopefully have positive results.
- Weeding should include a weed spray, followed by a hand removal team prior to re-planting beginning. Allow a few days for the spray weeds to show signs of
- No planting should occur before February as January and even early February temperatures are too hot and will dry the wetlands and kill plants.
- Insure irrigation system is in place before the water levels are dropped and watering is completed daily.
- Paperwork for the consolidation will not be submitted immediately after planting is completed. Paperwork will be submitted once both PES and ELD agree that the site is fit for submission.
- All works are to be completed prior to the PES/ELD inspection. Densities, plant health, irrigation system and weed management will all be inspected.

If each wetland is to be assessed/consolidated individually, ensure that this has been approved by the required authorities.

In regards to the plant numbers, these are purely indicative as is the marked up plan identifying problem areas. The contractor should insure they thoroughly inspect the wetland for bare areas as they conduct their weeding.

My main comment regarding the program is that both consolidation and handover documents are submitted when the works are deemed ready for submission. Not at the completion of re-planting or the end of the 26 week period. The 26 week period is the minimum amount of time allocated to consolidation, if works are not ready or in a satisfactory state then it may extend past 26 weeks. It is up to the contractor to ensure that the works are ready.

Kind regards,

Sch 2 2.2(a)(ii) B.Arch (Hons) BDes

enviro links design



Landscape Architect

5/61 Dundas Court PHILLIP ACT 2606 | P 02 6281 6066 | Sch 2 2.2(a)(ii) www.envirolinks.com.au

**2018 AILA ACT Landscape Architecture Award for Cultural Heritage**

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From everyone at **ELD** we wish you a **safe** and **happy Holiday**

Our office will be closed from Friday 21<sup>st</sup> December 2018 and will reopen on Monday 14<sup>th</sup> January, 2019.

---

**From:** Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>  
**Sent:** Monday, 17 December, 2018 9:45 PM  
**To:** Sch 2 2.2(a)(ii) <[redacted]@envirolinks.com.au>  
**Cc:** Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>; 'Taylor, Nick' <Nick.Taylor@act.gov.au>  
**Subject:** Consolidation Program and Methodology, Isabella Weir

Hi [redacted]

Further to our inspection with Joel this morning, would you please summarise the notes of the inspection. I have attached the draft of the Consolidation Methodology and the Program. Please provide your comments and also please provide the number of plants require to prepare the wetlands for the consolidation.

Thanks

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile - Sch 2 2.2(a)(ii)



**From:** "Sch 2 2.2(a)(ii)" <[redacted]@alsglobal.com>  
**Sent:** 07/01/2019 12:01 AM  
**To:** "Sch 2 2.2(a)(ii)" <[redacted]@smec.com>; "Sch 2 2.2(a)(ii)" <[redacted]@smec.com>  
**Cc:** "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Sch 2 2.2(a)(ii)" <[redacted]@smec.com>; "Sch 2 2.2(a)(ii)" <[redacted]@smec.com>; "Sch 2 2.2(a)(ii)" <[redacted]@alsglobal.com>  
**Subject:** FW: Weir level monitoring equipment re-installation  
**Attachments:** IWU Rating Curves.docx

Hi [redacted]

Thanks for the attached information, however what ALS requires is the final theoretical rating table for the completed structure with and without the stoplogs in place.

Regards,

[redacted]

ACT Operations Manager, Hydrographics  
 Australia



**T** +61 2 6202 5400 **D** [redacted]  
**F** +61 2 6202 5456 **M** [redacted]  
[\[redacted\]@alsglobal.com](mailto:[redacted]@alsglobal.com)  
 16B Lithgow Street  
 Fyshwick ACT 2609



F5604852

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[www.alsglobal.com](http://www.alsglobal.com)

Please consider the environment before printing this email.

You will save 5g of paper, 250mL of water and at least 35gm of CO<sub>2</sub>

**From:** [redacted]  
**Sent:** Thursday, 15 November 2018 9:25 AM  
**To:** [redacted] <[redacted]@alsglobal.com>  
**Subject:** FW: Weir level monitoring equipment re-installation

Hi [redacted]

Can you make any sense of this rating?

Regards,

[redacted]

**From:** [Sch 2 2.2(a)(ii)] <[redacted]@smec.com>  
**Sent:** Monday, 12 November 2018 11:52 AM  
**To:** [Sch 2 2.2(a)(ii)] <[redacted]@alsglobal.com>  
**Cc:** [Sch 2 2.2(a)(ii)] <[redacted]@smec.com>; Taylor, Nick <Nick.Taylor@act.gov.au>  
**Subject:** RE: Weir level monitoring equipment re-installation

[Sch 2 2.2(a)(ii)],

The attached is an extract from the report on the physical hydraulic modelling that was done at the time of the upgrade design. Hopefully this gives you what you are after.

Regards,

[Sch 2 2.2(a)(ii)]

Senior Structural Engineer

SMEC (Member of the Surbana Jurong Group)

T [Sch 2 2.2(a)(ii)]

---

**From:** [Sch 2 2.2(a)(ii)] <[redacted]@alsglobal.com>  
**Sent:** Monday, 5 November 2018 10:21 AM  
**To:** [Sch 2 2.2(a)(ii)] <[redacted]@smec.com>  
**Subject:** RE: Weir level monitoring equipment re-installation

Hi [Sch 2 2.2(a)(ii)]

I received your details from [Sch 2 2.2(a)] from Guideline regarding the Isabella Weir Upgrade.

Historically ALS has run the hydrographic monitoring of this site and we have just re-installed the monitoring equipment on the new weir structure.

I was hoping you could please provide me with the discharge rating of the new structure? We will need to update our system to reflect the widening of the weir and maintain the accuracy of our discharge data going forward as they are ready to fill the dam.

Regards,

[Sch 2 2.2(a)(ii)]

---

**From:** [Sch 2 2.2(a)(ii)] <[redacted]@guidelineact.com.au>  
**Sent:** Wednesday, 31 October 2018 3:53 PM  
**To:** [Sch 2 2.2(a)(ii)] <[redacted]@alsglobal.com>  
**Cc:** [Sch 2 2.2(a)(ii)] <[redacted]@smec.com>  
**Subject:** RE: Weir level monitoring equipment re-installation

Hi [Sch 2 2.2(a)(ii)]

The best person to contact regarding that information would be [Sch 2 2.2(a)(ii)] at SMEC.

Talking directly with him will be the most efficient way to proceed.

Kind regards,

[Sch 2 2.2(a)(ii)]

[Sch 2 2.2(a)(ii)] | Project Manager | Isabella Weir Upgrade

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [Sch 2 2.2(a)(ii)] <[redacted]@guidelineact.com.au>

M: [Sch 2 2.2(a)(ii)]



**From:** [Sch 2 2.2(a)(ii)] [alsglobal.com]  
**Sent:** Wednesday, 31 October 2018 3:34 PM  
**To:** [Sch 2 2.2(a)(ii)]  
**Subject:** RE: Weir level monitoring equipment re-installation

Hi [Sch 2 2.2(a)(ii)]

Thanks for getting the gate sorted so fast, it looks good.

Please take this email as confirmation that ALS has re-commissioned the Isabella Weir monitoring site and it is currently recording and ready to capture the fill when it occurs.

Would you by any chance have any information from the engineers regarding the discharge rating of the new structure? We will need to update our system to reflect the widening of the weir and maintain the accuracy of our data going forward.

Regards,

[Sch 2 2.2(a)(ii)]

**From:** [Sch 2 2.2(a)(ii)] [guidelineact.com.au]  
**Sent:** Wednesday, 31 October 2018 10:40 AM  
**To:** [Sch 2 2.2(a)(ii)] [alsglobal.com]  
**Subject:** RE: Weir level monitoring equipment re-installation

Hi [Sch 2 2.2(a)(ii)],

I've been onsite this morning and the works completed by your team look good.

The small door has been installed also, would you like an ALS Padlock on the door or a TCCS padlock?

Can you also forward any QA you completed for the works? Or alternatively an email stating that the level monitoring device is back up and running?

Kind regards, [Sch 2 2.2(a)(ii)]

**Sch 2 2.2(a)(ii) | Project Manager | Isabella Weir Upgrade**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [Sch 2 2.2(a)(ii)] [guidelineact.com.au]

M: [Sch 2 2.2(a)(ii)]



## 5.7 Spillway Rating Curve

Rating curves were developed by measured water levels upstream of the weir for 12 flows up to the Q10,000. Water levels were measured at three positions (refer to Test Positions Map in **Appendix C**) including:

- Isabella Pond (Position 75)
- Left Side Approach Wall (Position 46)
- Right Side Approach Wall (Position 45)

Water levels in the pond were measured using a Vernier point gauge and flow was relatively calm at this position. Water levels at the approach walls were measured using graduated rods as shown in **Figure 5-3**, and water levels fluctuated significantly in these positions, particularly for the higher flows. Rating curves are provided in **Table 5-2** and **Figure 5-5**.

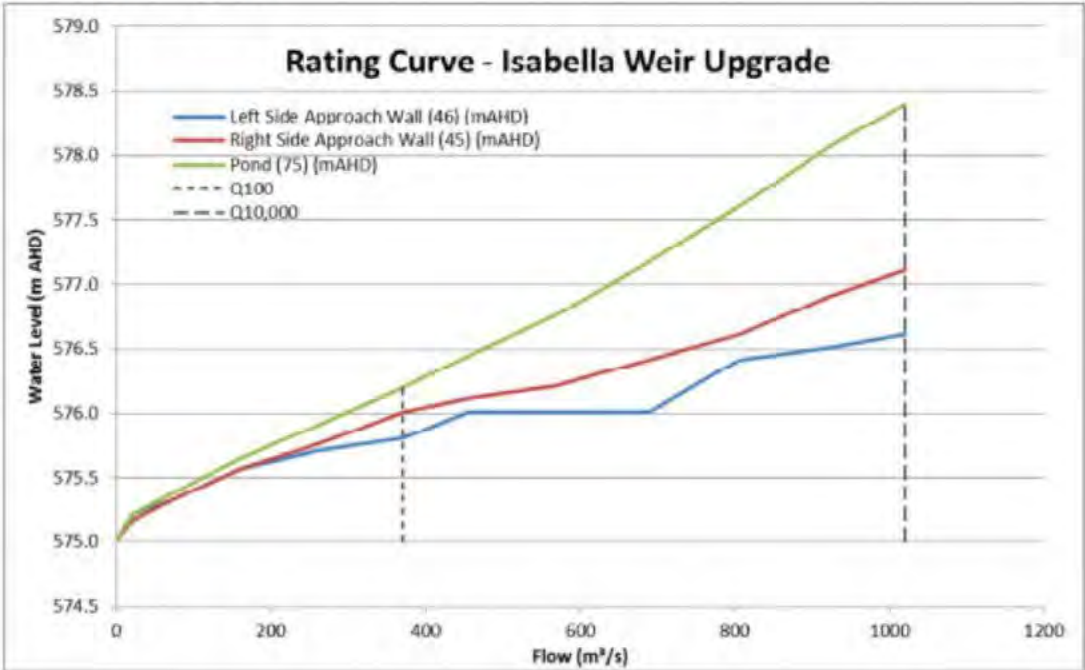
The constriction in and around the bridges appears to have an impact on levels in Isabella Pond. This impact increases with increasing flow but is difficult to quantify without further testing. Further testing would involve developing a new rating curve with Isabella Weir removed and comparing to the existing case.

The rating curves at the approach walls (positions 45 and 46) are not smooth curves. This is a result of the varying flow behaviour with changing flows rates. The water level is also noted to be higher on the right side than the left side approach.

**Table 5-2 Rating Curve Values**

| Flow (m <sup>3</sup> /s) | Water Level (mAHD)                    |  |                             |
|--------------------------|---------------------------------------|--|-----------------------------|
|                          | Left Side Approach Wall (Position 46) | Right Side Approach Wall (Position 45) | Isabella Pond (Position 75) |
| 0                        | 575.0                                 | 575.0                                  | 575.0                       |
| 21                       | 575.2                                 | 575.2                                  | 575.2                       |
| 68                       | 575.3                                 | 575.3                                  | 575.4                       |
| 159                      | 575.6                                 | 575.6                                  | 575.7                       |
| 261                      | 575.7                                 | 575.8                                  | 575.9                       |
| 370                      | 575.8                                 | 576.0                                  | 576.2                       |
| 454                      | 576.0                                 | 576.1                                  | 576.4                       |
| 570                      | 576.3                                 | 576.2                                  | 576.8                       |
| 688                      | 576.5                                 | 576.4                                  | 577.2                       |
| 806                      | 576.7                                 | 576.6                                  | 577.6                       |
| 922                      | 577.0                                 | 576.9                                  | 578.1                       |
| 1019                     | 577.2                                 | 577.1                                  | 578.4                       |

Figure 5-5 Rating Curves



**From:** "Sch 2 2.2(a)(ii)"  
**Sent:** 08/01/2019 8:48 PM  
**To:** "Sch 2 2.2(a)(ii)" @pes.net.au;"Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Cc:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** RE: Isabella Weir and Wetland Upgrade - Watermain Defect Notice [SEC=UNCLASSIFIED]

Hi [redacted]

A couple of things I would like to add to the below.

Firstly [redacted] will no longer be looking after this project as he finishes up with Icon water on Thursday. I will introduce you to the new inspector once all the materials have arrived on site.

Please be mindful that as we are cutting into a sealed line therefore the 300mm diameter TEE will need to be a FL/FL and not a SO/SO type which was used on other air valve.

Could you please check and confirm that the air valve that has been nominated by [redacted] has had a name change? Because the one mentioned below is not on the Latest Icon water approved product list? Item 2 Viadux BERMAD was the type used on other air valve.

I am happy to meet with you and explain the fitting types that will be required for this work or any other discussions related to this work if you wish?



## 2.14 Air Valves – Potable Water Network

| Item | Supplier           | Product   | Appraisals        |
|------|--------------------|---|-------------------|
| 1    | Ventomat Australia | Brand: <b>VENTOMAT</b><br>Sizes: DN50 – DN150<br>Connections: DN50: Threaded BSP or flanged<br>≥DN80: Flanged to AS 4087 PN16<br>Rating: PN16<br>Models: RBX Series, RBXc Series  | No WSAA appraisal |
| 2    | Viadux             | Brand: <b>BERMAD</b><br>Sizes: DN50 and DN80 only<br>Connections: DN50: Threaded BSP<br>DN80: Flanged to AS 4087 PN16<br>Rating: PN16<br>Models: C70-SP Combination Air Valve (fitted with down outlet and drain valve) | WSAA PA 1614      |

### Limits of Use:

- Ventomat air valves are approved for use in both urban and rural areas. Bermad air valves shall only be used when air valve chambers are required in urban areas.
- Bermad air valves are limited to sizes DN50 and DN80 only and shall be fitted with a drain outlet and drain valve.
- When ordering Ventomat air valves, state "Icon Water Standard Build" so that the correct configuration is supplied.
- All air valves shall have a test port of a minimum size DN15 complete with an isolation ball valve and test plug fitted.

### General Notes:

- Relevant standards and specifications: WSA PS-265, AS/NZS 4020 and AS 4956.



Kind Regards

Sch 2 2.2(a)(ii)

---

**From:** Sch 2 2.2(a)(ii) @pes.net.au  
**Sent:** Tuesday, 8 January 2019 5:00 PM  
**To:** 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>  
**Cc:** 'Sch 2 2.2(a)(ii)' Taylor, Nick' <Nick.Taylor@act.gov.au>  
**Subject:** RE: Isabella Weir and Wetland Upgrade - Watermain Defect Notice [SEC=UNCLASSIFIED]

Hi Stuart,

Sch 2 2.2(a) is referring to an attached email. The proposal by Sch 2 2.2(a) is as requested by Icon Water in an email from Sch 2 2.2(a)(ii) on 30 Nov 2018. I don't have a problem with Guideline's proposal for the product. Icon Water generally would like to know the supplier of the product and its certification before the product can be utilised on the main. It is a hold point under Icon Water's specifications. Though I will be in contact with Sch 2 2.2(a)(ii) from Icon water tomorrow to keep them inform and ask whether they would like to inspect the product or not.

Regards

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)  
 Professional Engineering Service Pty Limited ACN 057 633 897  
 Mobile - Sch 2 2.2(a)(ii)




---

**From:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Sent:** Tuesday, 8 January 2019 9:30 AM  
**To:** Sch 2 2.2(a)(ii) @pes.net.au  
**Cc:** Sch 2 2.2(a)(ii); Taylor, Nick <Nick.Taylor@act.gov.au>  
**Subject:** RE: Isabella Weir and Wetland Upgrade - Watermain Defect Notice [SEC=UNCLASSIFIED]

Sch 2 2.2(a),

Can you please ask Sch 2 2.2(a) for a copy of the Icon email he refers to below ie

"ICON WATER email (FW: WAE, Isabella Weir [SEC=UNCLASSIFIED], Tue 11/12/2018 2:30 PM)"

I don't seem to have a copy.

Thanks,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**  
 Capital Works, Transport Canberra and City Services Directorate | **ACT Government**  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Oxborrow, Stuart  
**Sent:** Tuesday, 8 January 2019 9:02 AM

**To:** Sch 2 2.2(a)(ii) [redacted]@pes.net.au>  
**Cc:** Sch 2 2.2(a)(ii) [redacted]; Taylor, Nick <Nick.Taylor@act.gov.au>  
**Subject:** FW: Isabella Weir and Wetland Upgrade - Watermain Defect Notice [SEC=UNCLASSIFIED]

Sch 2 2.2(a)(ii) [redacted]

Can you please review GLA's proposal below and confirm if what GLA are proposing is in accordance with Icon standards.

Sch 2 2.2(a)(ii) [redacted]

Can you also please review and advise if you see any potential issues.

Thanks,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Sch 2 2.2(a)(ii) [redacted]@guidelineact.com.au]  
**Sent:** Tuesday, 18 December 2018 8:18 AM  
**To:** Sch 2 2.2(a)(ii) [redacted]@pes.net.au>  
**Cc:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Subject:** RE: Isabella Weir and Wetland Upgrade - Watermain Defect Notice

Hi Sch 2 2.2(a)(ii) [redacted]

The water main has not been installed as per the original design, not complying with requirements due to various reasons. The defect has been a result of the agreed realignment change due to tree protections, differences in the connection levels specified and working in and around existing services. These issues are all outside of the control of Guideline ACT. Further, the resolution proposed by ICON Water is not considered reasonable when an existing air valve, existing scour and existing lower river crossing are all situated within 100mm of the air valve position. As discussed in the email chain, the use of a "hydrant" is within the ICON Water design parameters and is 'normal' for reticulated mains as per WAS 03-2011-3.1 and ICON Water Amendments.

However, in an effort to resolve the issue, Guideline ACT is prepared to install the Air Valve at its expense under the following conditions.

Guideline has allowed for:

- Air valve is to be constructed as per the air valve at CH 133.161 with Rural Pit Chamber.
- Air Valve to be a Pentair C70 (80mm, PN35) as requested by ICON WATER email (FW: WAE, Isabella Weir [SEC=UNCLASSIFIED], Tue 11/12/2018 2:30 PM)
- Flanged Ball Valve to be installed as requested by ICON WATER email (FW: WAE, Isabella Weir [SEC=UNCLASSIFIED], Tue 11/12/2018 2:30 PM)
- The Air Valve Chamber (SD-8240) by ICON WATER email (FW: WAE, Isabella Weir [SEC=UNCLASSIFIED], Tue 11/12/2018 2:30 PM) i.e. DN1350 Class 2 RC Pipe with cover as shown on SD-8240
- The works is aimed to be completed in 1 shift, i.e. 7am -5pm
- ICON Water representative to be present during works.
- Works as Executed revised, including survey

Guideline ACT proposal for rectification does not include:

- Disinfection works
- Pressure Testing
- This repair does not impact on the current completion date for Isabella Weir.

Please note, the Pentair C70 Air Valve lead time is yet To be Confirmed and will impact the program start date.

Kind regards,

Sch 2 2.2(a)(i)

---

**From:** Sch 2 2.2(a)(ii) [redacted]@pes.net.au  
**Sent:** Monday, 17 December 2018 3:14 PM  
**To:** Sch 2 2.2(a)(ii) [redacted]  
**Cc:** 'Oxborrow, Stuart'; 'Taylor, Nick'; 'McGrath, Michael'  
**Subject:** RE: Isabella Weir and Wetland Upgrade - Watermain Defect Notice

Hi Sch 2 2.2(a)(i),

As discussed in a meeting on 12 Dec 2018 and further to the defect notice provided on the same day regarding subject matter, would you please advise the work method and the program to rectify the watermain.

Thanks

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)  
Professional Engineering Service Pty Limited ACN 057 633 897  
Mobile - Sch 2 2.2(a)(ii)



---

**From:** Sch 2 2.2(a)(ii) [redacted]@pes.net.au>  
**Sent:** Wednesday, 12 December 2018 4:12 PM  
**To:** Sch 2 2.2(a)(ii) [redacted]@guidelineact.com.au>  
**Cc:** 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>; 'Taylor, Nick' <Nick.Taylor@act.gov.au>; 'McGrath, Michael' <Michael.McGrath@act.gov.au>  
**Subject:** Isabella Weir and Wetland Upgrade - Watermain Defect Notice

Our Ref: O-25.2-003-SP

Hi Sch 2 2.2(a)(i)

Please find attached Watermain Defect Notice in accordance with Clause 71 of GC21 for your action. Please let me know if you have any queries.

Regards

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)  
Professional Engineering Service Pty Limited ACN 057 633 897  
Mobile - Sch 2 2.2(a)(ii)



-----  
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**From:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Sent:** 18/01/2019 10:55 AM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Subject:** RE: Isabella Weir Upgrade Work Status [SEC=UNOFFICIAL]

Thanks Nick,

Items 3 and 4 were provided yesterday by Smec as promised.

Can you also please confirm with [Sch 2 2.2(a)(i)] whether the IV (ie [Sch 2 2.2(a)(ii)]) is still reviewing either Guideline's construction report or the Construction Report overview prepared by [Sch 2 2.2(a)(ii)].

Once confirmed I will speak to [Sch 2 2.2(a)(i)] and clarify our expectations.

It is understood that the RFI process is ongoing and that some additional time costs will be incurred by Smec for the assessment of repair methodologies.

Thanks,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: stuart.oxborrow@act.gov.au**  
 Capital Works, Transport Canberra and City Services Directorate | **ACT Government**  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Taylor, Nick  
**Sent:** Friday, 18 January 2019 8:43 AM  
**To:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Subject:** FW: Isabella Weir Upgrade Work Status [SEC=UNOFFICIAL]

Morning Boss

As discussed yesterday, [Sch 2 2.2(a)(i)] has delivered his response as promised, in my view we may ask why [Sch 2 2.2(a)(ii)] had not taken the same initiative, and asked about this back in November. Notwithstanding this at least we have some idea of the status of the work that [Sch 2 2.2(a)(i)] is working on.

Any questions then please ring me.

Regards Nick

---

**From:** [Sch 2 2.2(a)(ii)] <[Sch 2 2.2(a)(ii)]@smec.com>  
**Sent:** Thursday, 17 January 2019 4:28 PM  
**To:** Taylor, Nick <Nick.Taylor@act.gov.au>  
**Cc:** [Sch 2 2.2(a)(ii)] <[Sch 2 2.2(a)(ii)]@smec.com>; [Sch 2 2.2(a)(ii)] <[Sch 2 2.2(a)(ii)]@smec.com>  
**Subject:** Isabella Weir Upgrade Work Status

Nick,

Thanks you for calling in to our office yesterday. The status of various items of outstanding work is summarised below:

1. Post-construction design report – we are completing responses to the IV's comments with a view to meeting with Graeme shortly to go through them and get his sign-off before the end of the month.

2. First fill report – responses to comments have gone back to the IV and should be ready for final submission next week.
3. O&M Manual and Maintenance Procedures – all modifications have been done, however they have not been sent to **Sch 2 2.2(a)(ii)**. This will be done today.
4. Surveillance Procedures -- all modifications have been done, and will be sent to **Sch 2 2.2(a)(ii)** today.

In addition to the above there has been some correspondence between **Sch 2 2.2(a)(ii)** and **Sch 2 2.2(a)** relating to provision of advice on the repair methods for cracks on the labyrinth wall. This will result in some additional expense which I had not anticipated or allowed for. I expect this to be about 4 hr of TG time and 1 hr of mine. I would be grateful for your agreement to invoice for this additional work.

Regards,

**Sch 2 2.2(a)(ii)**

Senior Structural Engineer

**T Sch 2 2.2(a)(ii)**

E **Sch 2 2.2(a)(ii)** @smec.com

**Local People, Global Experience**

SMEC (Member of the Surbana Jurong Group)

Suite 2, Level 1, 243 Northbourne Avenue, Lyneham, ACT, 2602, Australia

[www.smec.com](http://www.smec.com) | [LinkedIn](#)

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**From:** "Sch 2 2.2(a)(ii)" <[REDACTED]@guidelineact.com.au>  
**Sent:** 29/01/2019 12:22 AM  
**To:** "Sch 2 2.2(a)(ii)" <[REDACTED]@pes.net.au>  
**Cc:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** Lowering Plan for Wetlands Consolidation Works  
**Attachments:** Lowering Plan.pdf, Weir Elevation.pdf

Hi [REDACTED] Niklas,

As discussed onsite, the proposed start date to lower the water levels for the Wetlands works is the 14<sup>th</sup> of February.

The Weir itself will need to be lowered to RL 573.8 to allow a 400mm buffer to the underside of the stop boards. The stop boards can be removed using ladders from the downstream side. To access the downstream side, the area between the Isabella Weir Upgrade and the Tuggeranong Weir are also to be lowered to RL 569.4.

Once the weir stop logs are removed, the weir will balance to RL 574.20 and the wetlands will then be fully accessible for the weeding and planting works commence the Week Commencing 18<sup>th</sup> February.

Can you please confirm your acceptable to the proposed levels and dates shown attached?

Kind regards,

[REDACTED]

**Sch 2 2.2(a)(ii) | Project Manager**  
16B Bass Street, Queanbeyan NSW 2620  
PO Box 537, Queanbeyan NSW 2620  
E: [REDACTED]@guidelineact.com.au  
M: [REDACTED]



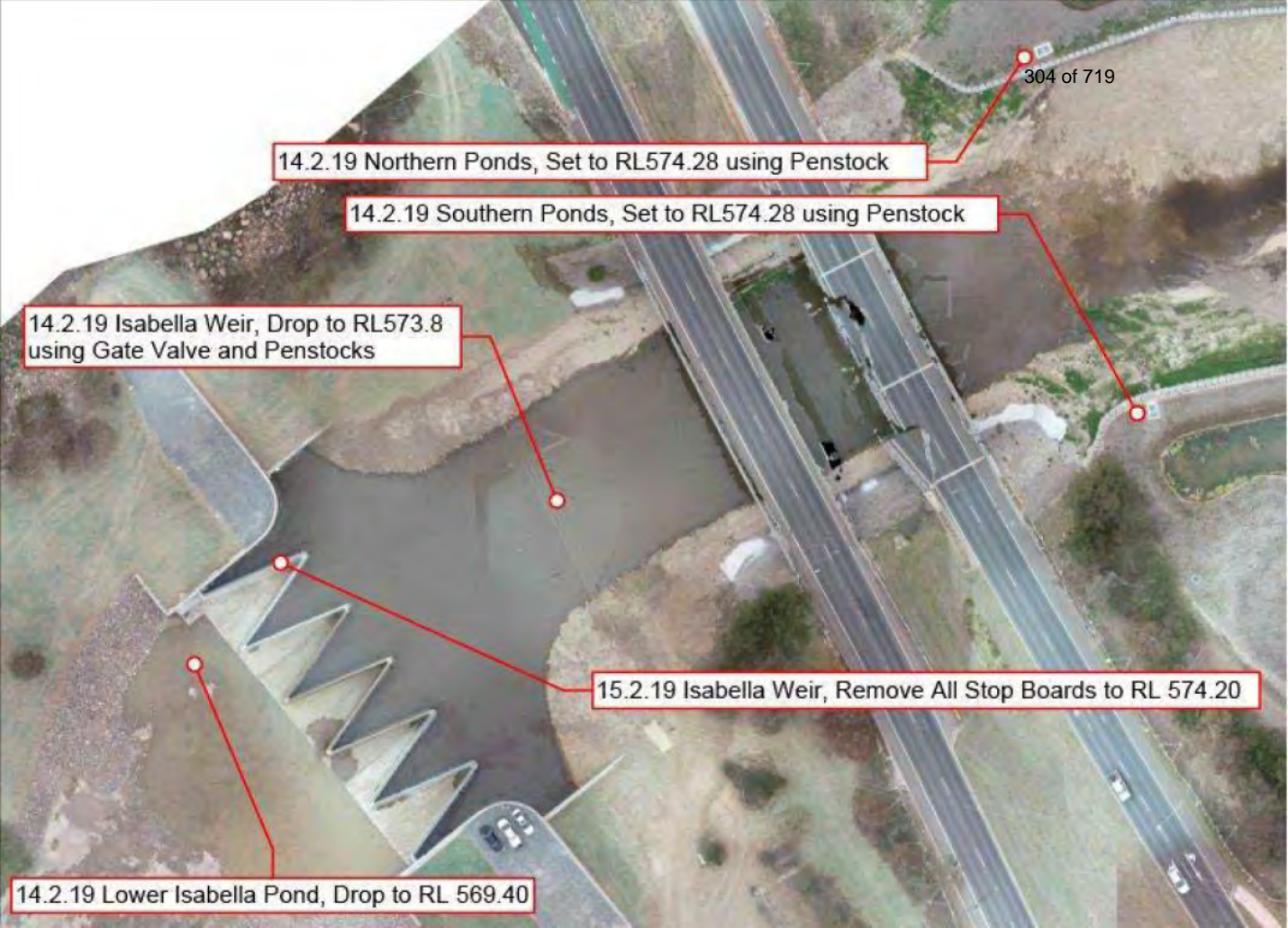
14.2.19 Northern Ponds, Set to RL574.28 using Penstock

14.2.19 Southern Ponds, Set to RL574.28 using Penstock

14.2.19 Isabella Weir, Drop to RL573.8 using Gate Valve and Penstocks

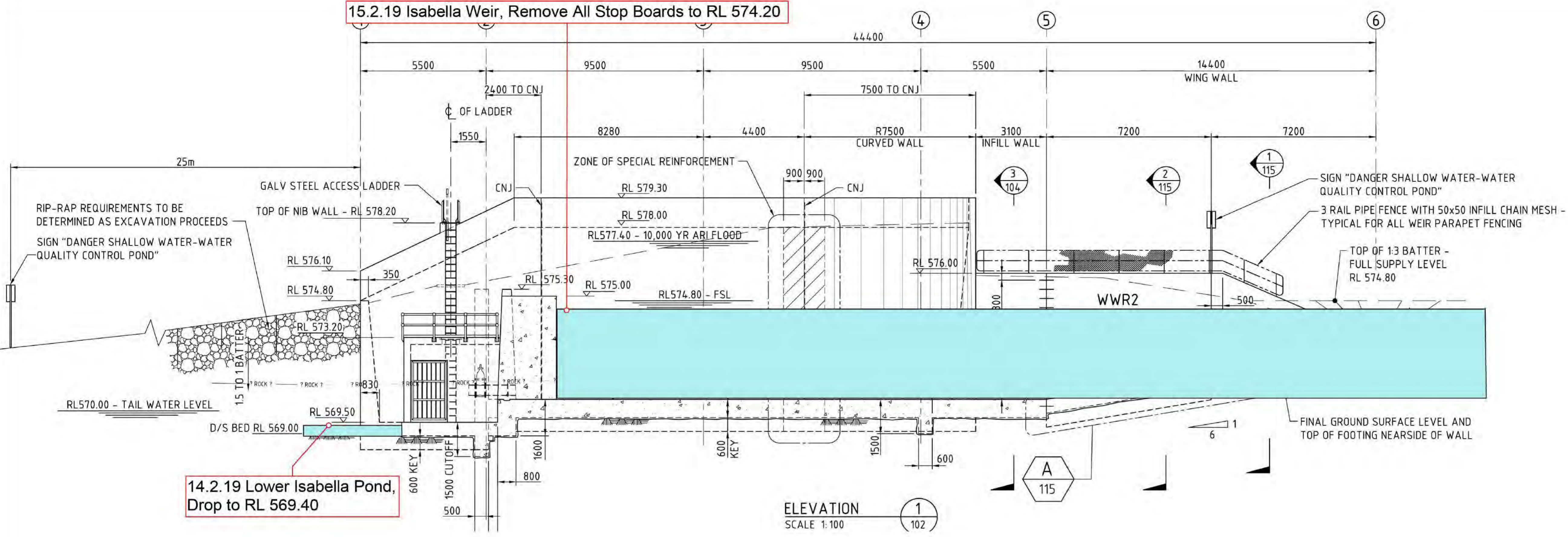
15.2.19 Isabella Weir, Remove All Stop Boards to RL 574.20

14.2.19 Lower Isabella Pond, Drop to RL 569.40





15.2.19 Isabella Weir, Remove All Stop Boards to RL 574.20



150 mm ON ORIGINAL  
A1

| EXTERNAL REFERENCE FILES | REV | DATE       | AMENDMENT / REVISION DESCRIPTION | WVR No | APPROVAL | TITLE            | NAME            |
|--------------------------|-----|------------|----------------------------------|--------|----------|------------------|-----------------|
|                          | B   | 09/08/2014 | DRAFT TENDER ISSUE               | 013    | SB       | DRAFTER          | Sch 2 2.2(a)(i) |
|                          | C   | 24/08/2014 | DRAFT TENDER ISSUE               | 014    | SB       | DRAFTING CHECK   |                 |
|                          | D   | 08/09/2014 | TENDER ISSUE                     | 015    | SB       | DESIGNER         |                 |
|                          | E   | 28/09/2014 | TENDER ISSUE - FEEDBACK UPDATES  | 016    | SB       | DESIGN CHECK     |                 |
|                          | F   | 02/03/2017 | ISSUE FOR CONSTRUCTION           | 017    | SB       | PROJECT MANAGER  |                 |
|                          | G   | 29/09/2017 | ISSUE FOR CONSTRUCTION           | 018    | SB       | PROJECT DIRECTOR |                 |
|                          | H   | 12/10/2017 | ISSUE FOR CONSTRUCTION           | 019    | SB       |                  |                 |
|                          | J   | 14/12/2017 | ISSUE FOR CONSTRUCTION           | 020    | SB       |                  |                 |
|                          | K   | 30/11/2018 | WORK AS EXECUTED                 | 022    | PT       |                  |                 |

| SCALE AT A1 SIZE DRAWING | DESIGNER               | CLIENT         | PROJECT TITLE         | SCALE    | PHASE | PROJECT / DRAWING No | REVISION |
|--------------------------|------------------------|----------------|-----------------------|----------|-------|----------------------|----------|
| SCALE 1 : 100            | SMEC AUSTRALIA PTY LTD | ACT Government | ISABELLA WEIR UPGRADE | AS SHOWN | IFC   | 3002402-103          | K        |

DESIGNER: **SMEC**  
SMEC AUSTRALIA PTY LTD  
© ABN 47 065 475 149  
SUITE 2, LEVEL 1, 243 NORTHBOURNE AVENUE  
LYNEHAM ACT 2602 AUSTRALIA  
PH (02) 6234 1900 FAX (02) 6234 1966  
SMEC PROJECT No 3002402

CLIENT: **ACT Government**  
Economic Development Directorate

PROJECT TITLE: **ISABELLA WEIR UPGRADE**  
**WEIR ELEVATIONS**  
**CONCRETE OUTLINE**

SCALE: AS SHOWN | PHASE: IFC | PROJECT / DRAWING No: 3002402-103 | REVISION: K

**From:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Sent:** 30/01/2019 7:08 AM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Subject:** RE: Public response [SEC=UNCLASSIFIED]  
**Importance:** High

Nick

Can you also get an answer to the question about who the arrangements were made with at Act Wildlife or whoever Matt spoke to.

Also how often are inspections undertaken?

Regards

Michael

**Michael McGrath | Director – Land Release Infrastructure**  
**Phone 02 6207 1491** | Mobile 0403 939 920 | Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Taylor, Nick  
**Sent:** Tuesday, 29 January 2019 4:06 PM  
**To:** McGrath, Michael <Michael.McGrath@act.gov.au>  
**Cc:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Subject:** FW: Public response [SEC=UNCLASSIFIED]

Please see below

---

**From:** Sch 2 2.2(a)(ii) <[REDACTED]@guidelineact.com.au>  
**Sent:** Tuesday, 29 January 2019 4:01 PM  
**To:** Taylor, Nick <Nick.Taylor@act.gov.au>  
**Cc:** McGrath, Michael <Michael.McGrath@act.gov.au>  
**Subject:** RE: Public response [SEC=UNCLASSIFIED]

Hi Nick,

Both the northern and southern wetlands were inspected this morning, no bird life was seen to be caught in the netting during the inspection between 7-8am.

The storm event from last week has seen the net at the northern most pond impacted (see photo attached). These will be amended ASAP. Once completed, I'll forward evidence that the net is fixed.

Kind regards,  
Matt.

**Sch 2 2.2(a)(ii) | Project Manager**  
16B Bass Street, Queanbeyan NSW 2620  
PO Box 537, Queanbeyan NSW 2620  
E: [Sch 2 2.2\(a\)\(ii\)@guidelineact.com.au](mailto:Sch 2 2.2(a)(ii)@guidelineact.com.au)  
M: Sch 2 2.2(a)(ii)

---

**From:** Taylor, Nick [<mailto:Nick.Taylor@act.gov.au>]  
**Sent:** Tuesday, 29 January 2019 3:14 PM  
**To:** Sch 2 2.2(a)(ii)  
**Cc:** McGrath, Michael  
**Subject:** FW: Public response [SEC=UNCLASSIFIED]  
**Importance:** High

Afternoon Sch 2 2.2(a)

Please see the email from our client and respond ASAP, this could have potential to get out of hand.

Regards Nick

---

**From:** McGrath, Michael  
**Sent:** Tuesday, 29 January 2019 2:56 PM  
**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Subject:** FW: Public response [SEC=UNCLASSIFIED]  
**Importance:** High

Nick

Can you please get info from Sch 2 2.2(a) on the issues below and their current visiting process etc. Who did they contact about the wording and agreement from ACT Wildlife.

Regards

Michael

**Michael McGrath | Director – Land Release Infrastructure**  
**Phone 02 6207 1491 | Mobile 0403 939 920 | Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)**  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Lewer, Penni  
**Sent:** Tuesday, 29 January 2019 1:20 PM  
**To:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>  
**Cc:** Mangeruca, Maria <[Maria.Mangeruca@act.gov.au](mailto:Maria.Mangeruca@act.gov.au)>  
**Subject:** Public response [SEC=UNCLASSIFIED]

Hi there

I'm not even sure you're around. However, I have the following enquiry to respond to. I'm not entirely sure this is the Isabella Pond project.. could be Upper Stranger Pond but "behind Monash"?? Anyway, just want to see what your current process is re checking nets for wildlife now that Guideline is off-site.

*The Lake Tuggeranong wetlands project across from Isabella Drive and behind Monash needs repairing after the storms on the 23rd of January.*  
*You have placed signs up with numbers for people to call regarding injured wildlife, which apparently doesn't work. Yesterday morning at around 7am I found a duck hanging upside down by its feet in netting (I have no idea how long it was left there) and was clearly tired but still very much alive. I called access Canberra who passed the information along to ACT Wildlife whom left it to die in the sun, what a horrid ending for any animal.*  
*I have since been in contact with ACT Wildlife and their response is that this isn't first animal to meet a end like this since it is "difficult" to access the area ie: the fencing places around the waterways. It is truly abhorrent to leave any animal suffering and had I any idea I would have taken the matter further.*

*Please send people down to either replace the netting or remove it altogether.*

Thanks

## Penni Lewer

Communications | [ACT Healthy Waterways](#) | Phone 62077518

Environment, Planning and Sustainable Development | ACT Government | [www.environment.act.gov.au](http://www.environment.act.gov.au)

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**From:** "Sch 2 2.2(a)(ii)" <[REDACTED]@guidelineact.com.au>  
**Sent:** 30/01/2019 3:16 AM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Subject:** RE: Public response [SEC=UNCLASSIFIED]  
**Attachments:** Duck and Wildlife Management, RE: Duck and Wildlife Management, Book1.xlsx, Isabella Ponds Wildlife Management Plan.pdf

Hi Nick,

The signage and wording was forwarded to [REDACTED] and Stuart in late October for review and approval, please see both emails attached.

The management of the wildlife has been implemented as per the document attached.

Kind regards,

[REDACTED]

**Sch 2 2.2(a)(ii) | Project Manager**  
 16B Bass Street, Queanbeyan NSW 2620  
 PO Box 537, Queanbeyan NSW 2620  
 E: [REDACTED]@guidelineact.com.au  
 M: [REDACTED]




---

**From:** Taylor, Nick [mailto:Nick.Taylor@act.gov.au]  
**Sent:** Wednesday, 30 January 2019 8:17 AM  
**To:** [REDACTED]  
**Cc:** McGrath, Michael  
**Subject:** RE: Public response [SEC=UNCLASSIFIED]

Morning [REDACTED]

Thank you for your response, please could you respond to Michael's question (Who did they contact about the wording and agreement from ACT Wildlife.) As stated before this has the potential to escalate are the team are keen to manage this incident professionally.

Regards Nick

---

**From:** [REDACTED]@guidelineact.com.au  
**Sent:** Tuesday, 29 January 2019 4:01 PM  
**To:** Taylor, Nick <Nick.Taylor@act.gov.au>  
**Cc:** McGrath, Michael <Michael.McGrath@act.gov.au>  
**Subject:** RE: Public response [SEC=UNCLASSIFIED]

Hi Nick,

Both the northern and southern wetlands were inspected this morning, no bird life was seen to be caught in the netting during the inspection between 7-8am.

The storm event from last week has seen the net at the northern most pond impacted (see photo attached). These will be amended ASAP. Once completed, I'll forward evidence that the net is fixed.

Kind regards,

Sch 2 2.2(a)(i)

**Sch 2 2.2(a)(ii) | Project Manager**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [Sch 2 2.2\(a\)\(ii\)-@guidelineact.com.au](mailto:Sch 2 2.2(a)(ii)-@guidelineact.com.au)

M: [Sch 2 2.2\(a\)\(ii\)](tel:Sch 2 2.2(a)(ii))




---

**From:** Taylor, Nick [<mailto:Nick.Taylor@act.gov.au>]  
**Sent:** Tuesday, 29 January 2019 3:14 PM  
**To:** Sch 2 2.2(a)(ii)  
**Cc:** McGrath, Michael  
**Subject:** FW: Public response [SEC=UNCLASSIFIED]  
**Importance:** High

Afternoon Sch 2 2.2(a)

Please see the email from our client and respond ASAP, this could have potential to get out of hand.

Regards Nick

---

**From:** McGrath, Michael  
**Sent:** Tuesday, 29 January 2019 2:56 PM  
**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Subject:** FW: Public response [SEC=UNCLASSIFIED]  
**Importance:** High

Nick

Can you please get info from Sch 2 2.2(a) on the issues below and their current visiting process etc. Who did they contact about the wording and agreement from ACT Wildlife.

Regards

Michael

**Michael McGrath | Director – Land Release Infrastructure**  
**Phone 02 6207 1491 | Mobile 0403 939 920 | Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)**  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Lewer, Penni  
**Sent:** Tuesday, 29 January 2019 1:20 PM  
**To:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>  
**Cc:** Mangeruca, Maria <[Maria.Mangeruca@act.gov.au](mailto:Maria.Mangeruca@act.gov.au)>  
**Subject:** Public response [SEC=UNCLASSIFIED]

Hi there

I'm not even sure you're around. However, I have the following enquiry to respond to. I'm not entirely sure this is the Isabella Pond project.. could be Upper Stranger Pond but "behind Monash"?? Anyway, just want to see what your current process is re checking nets for wildlife now that Guideline is off-site.

*The Lake Tuggeranong wetlands project across from Isabella Drive and behind Monash needs repairing after the storms on the 23rd of January.*

*You have placed signs up with numbers for people to call regarding injured wildlife, which apparently doesn't work. Yesterday morning at around 7am I found a duck hanging upside down by its feet in netting (I have no idea how long it was left there) and was clearly tired but still very much alive. I called access Canberra who passed the information along to ACT Wildlife whom left it to die in the sun, what a horrid ending for any animal.*

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*Please send people down to either replace the netting or remove it altogether.*

Thanks

## Penni Lewer

Communications | ACT Healthy Waterways | Phone 62077518

Environment, Planning and Sustainable Development | ACT Government | [www.environment.act.gov.au](http://www.environment.act.gov.au)

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-----

**From:** "Sch 2 2.2(a)(ii)" <[redacted]@guidelineact.com.au>  
**Sent:** 30/10/2018 5:34 AM  
**To:** "Sch 2 2.2(a)(ii)" <[redacted]@pes.net.au> "Sch 2 2.2(a)(ii)" <[redacted]@pes.net.au>  
**Cc:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Subject:** Duck and Wildlife Management  
**Attachments:** Book1.xlsx, Isabella Ponds Wildlife Management Plan.pdf

Hi [redacted]

As requested, I've drafted a Wildlife management plan for the Isabella Ponds. The management plan will be in place whilst the consolidation period is active.

Attached is the management plan draft and proposed signage for your information.

Please provide any feedback by COB Thursday 1/11/18 to ensure we can have the signs made up ASAP.

Kind regards,

[redacted]

**Sch 2 2.2(a)(ii) | Project Manager | Isabella Weir Upgrade**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

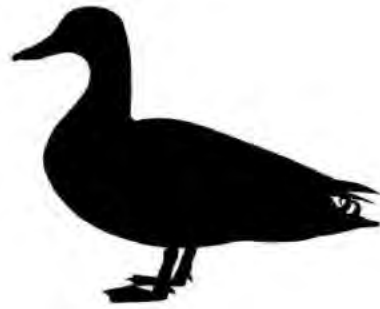
E: [redacted]@guidelineact.com.au

M: [redacted]





# INJURED WILDLIFE?



PLEASE REPORT TO:

- ACCESS Canberra 13 22 81
- OR
- ACT Wildlife 0432 300 033
- OR
- RSPCA ACT 02 6287 8100

# Isabella Ponds Wildlife Management Plan

## During Consolidation Period

### Purpose:

This management plan has been developed to detail the steps Guideline will adopt during the consolidation period to manage the risk to wildlife in and around the newly constructed wetlands.

### Methodology:

- Guideline ACT supervision will inspect the Isabella Wetlands site at not more than 1 month intervals. Notification will be forward via email to the PAP following each inspection of the site. Any remediation works required to the site will be summarised in each notification.
- Guidelines subcontractor, Able's Landscaping will continue to monitor the wetlands during the 6month consolidation period. The site will be inspected at no more than 2week intervals during the 6 month consolidation period.
- During any one of these inspections, the Bird Netting will be checked for security and any defects to the netting be made good prior to the inspector leaving site.
- Should any wildlife be affected by the netting, i.e. Trapped underneath netting or caught in the netting, the animal will be freed as long as in the act of freeing the animal, no additional harm is caused to the animal or person conducting the rescue or inspection.

#### ACT Wildlife Organisations

- In the event that the animal cannot be freed without increasing its stress, the supervisor is to contact one of the below Professional organisations that are trained and setup to assist with injured wildlife in the ACT:
  - ACCESS Canberra 13 22 81
  - OR
  - ACT Wildlife 0432 300 033
  - OR
  - RSPCA ACT 02 6287 8100
- Signage will be placed 50m intervals on the temporary fence to promote that the public contact the above organisations should they see any wildlife in distress.
- These signs will be in place until the bird netting is removed from site.

**From:** "Sch 2 2.2(a)(ii) @pes.net.au" <Sch 2 2.2(a)(ii)@pes.net.au>  
**Sent:** 05/11/2018 11:38 PM  
**To:** "Sch 2 2.2(a)(ii) @guidelineact.com.au"  
**Cc:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "Sch 2 2.2(a)(ii) @pes.net" <Sch 2 2.2(a)(ii)@pes.net.au>  
**Subject:** RE: Duck and Wildlife Management

Sch 2 2.2(a)

Thanks, this plan is acceptable.

Regards

Sch 2 2.2(a)(ii)

Professional Engineering Service Pty Limited ACN 057 633 897  
 Acting in the capacity of the Territory's Principal's Authorised Person (PAP) Isabella Weir and Wetlands Project  
 Mobile Sch 2 2.2(a)(ii)

---

**From:** Sch 2 2.2(a)(ii) @guidelineact.com.au  
**Sent:** Tuesday, 30 October 2018 4:34 PM  
**To:** Sch 2 2.2(a)(ii)@pes.net.au  
**Cc:** 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>  
**Subject:** Duck and Wildlife Management

Hi Sch 2 2.2(a)

As requested, I've drafted a Wildlife management plan for the Isabella Ponds. The management plan will be in place whilst the consolidation period is active.

Attached is the management plan draft and proposed signage for your information.

Please provide any feedback by COB Thursday 1/11/18 to ensure we can have the signs made up ASAP.

Kind regards,

Sch 2 2.2(a)(ii)

Sch 2 2.2(a)(ii) | Project Manager | Isabella Weir Upgrade

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: Sch 2 2.2(a)(ii)@guidelineact.com.au

M: Sch 2 2.2(a)(ii)



# INJURED WILDLIFE?



PLEASE REPORT TO:

○ ACCESS Canberra 13 22 81

OR

○ ACT Wildlife 0432 300 033

OR

○ RSPCA ACT 02 6287 8100

# **Isabella Ponds Wildlife Management Plan**

## **During Consolidation Period**

### **Purpose:**

This management plan has been developed to detail the steps Guideline will adopt during the consolidation period to manage the risk to wildlife in and around the newly constructed wetlands.

### **Methodology:**

- Guideline ACT supervision will inspect the Isabella Wetlands site at not more than 1 month intervals. Notification will be forward via email to the PAP following each inspection of the site. Any remediation works required to the site will be summarised in each notification.
- Guidelines subcontractor, Able's Landscaping will continue to monitor the wetlands during the 6month consolidation period. The site will be inspected at no more than 2week intervals during the 6 month consolidation period.
- During any one of these inspections, the Bird Netting will be checked for security and any defects to the netting be made good prior to the inspector leaving site.
- Should any wildlife be affected by the netting, i.e. Trapped underneath netting or caught in the netting, the animal will be freed as long as in the act of freeing the animal, no additional harm is caused to the animal or person conducting the rescue or inspection.

#### **ACT Wildlife Organisations**

- In the event that the animal cannot be freed without increasing its stress, the supervisor is to contact one of the below Professional organisations that are trained and setup to assist with injured wildlife in the ACT:
  - **ACCESS Canberra 13 22 81**
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  - OR
  - **RSPCA ACT 02 6287 8100**
- Signage will be placed 50m intervals on the temporary fence to promote that the public contact the above organisations should they see any wildlife in distress.
- These signs will be in place until the bird netting is removed from site.

**From:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Sent:** 31/01/2019 9:48 AM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** RE: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]

Thanks Nick,

That makes sense. We'll mention this to [Sch 2.2.2(a)] this afternoon.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Taylor, Nick  
**Sent:** Thursday, 31 January 2019 9:37 AM  
**To:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Subject:** RE: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]

Morning Stuart

I spoke with [Sch 2.2.2(a)(i)] this morning and he has asked me to contact Noreen just to inform her of the proposed works so she is able to contact the necessary stakeholders. Having read this email I'm going to hold off until we have more definitive timeline, I note also that [Sch 2.2.2(a)] has made no mention of lowering the pond enough to necessitate any works to upstream of the Dam ?

Regards Nick

---

**From:** Oxborrow, Stuart  
**Sent:** Thursday, 31 January 2019 8:47 AM  
**To:** [Sch 2.2.2(a)(ii)] <[redacted]@guidelineact.com.au>  
**Cc:** Taylor, Nick <Nick.Taylor@act.gov.au>; [Sch 2.2.2(a)(ii)] <[redacted]@pes.net.au>; McGrath, Michael <Michael.McGrath@act.gov.au>  
**Subject:** RE: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]

[Sch 2.2.2(a)(i)]

We are currently going through the various notifications and seeking approval from stakeholders about your proposed pond lowering mentioned below.

Can you also please advise the anticipated dates for the complete lowering of pond for the wall repairs. We will need to put out a media release and include all the proposed dates for the pond lowering – ie the partial lowering mentioned below and the complete lowering for the repairs.

As part of this, can you also please advise how long you think the pond will be kept at 574.20 as mentioned below.

Thanks,

Stuart

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government

**From:** Sch 2 2.2(a)(ii) [redacted]@guidelineact.com.au  
**Sent:** Tuesday, 29 January 2019 11:23 AM  
**To:** Sch 2 2.2(a)(ii) [redacted]@pes.net.au  
**Cc:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Subject:** Lowering Plan for Wetlands Consolidation Works

Hi [redacted], Niklas,

As discussed onsite, the proposed start date to lower the water levels for the Wetlands works is the 14<sup>th</sup> of February.

The Weir itself will need to be lowered to RL 573.8 to allow a 400mm buffer to the underside of the stop boards. The stop boards can be removed using ladders from the downstream side. To access the downstream side, the area between the Isabella Weir Upgrade and the Tuggeranong Weir are also to be lowered to RL 569.4.

Once the weir stop logs are removed, the weir will balance to RL 574.20 and the wetlands will then be fully accessible for the weeding and planting works commence the Week Commencing 18<sup>th</sup> February.

Can you please confirm your acceptable to the proposed levels and dates shown attached?

Kind regards,

[redacted]

Sch 2 2.2(a)(ii) | **Project Manager**  
16B Bass Street, Queanbeyan NSW 2620  
PO Box 537, Queanbeyan NSW 2620  
E: Sch 2 2.2(a)(ii)@guidelineact.com.au  
M: Sch 2 2.2(a)(ii) [redacted]



**From:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Sent:** 31/01/2019 9:49 AM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** FW: Meeting on Isabella weir [SEC=UNCLASSIFIED]

Nick

I have already forwarded. No need to action

Michael

**Michael McGrath | Director – Land Release Infrastructure**  
**Phone 02 6207 1491** | Mobile 0403 939 920 | Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Oxborrow, Stuart  
**Sent:** Thursday, 31 January 2019 9:38 AM  
**To:** Taylor, Nick <Nick.Taylor@act.gov.au>  
**Cc:** McGrath, Michael <Michael.McGrath@act.gov.au>  
**Subject:** RE: Meeting on Isabella weir [SEC=UNCLASSIFIED]

Thanks Nick,

Can you please circulate this to **Sch 2 2.2(a)(ii)**.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Taylor, Nick  
**Sent:** Thursday, 31 January 2019 9:29 AM  
**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>  
**Cc:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>  
**Subject:** Meeting on Isabella weir [SEC=UNCLASSIFIED]

Morning Stuart

Below are the subjects that may be discussed today at the meeting for the repairs and maintenance on Isabella Weir.

#### Items for Agenda

1. Introductions
2. Purpose of the meeting (SO)
3. Agree methodology: GLA to table their methodology, (and discuss how they propose to repair cracks from both upstream and downstream)
4. Guideline /Smec to agree material for repairing cracks, (if necessary agree other materials for varying size of cracks)
5. Guideline /Smec/PES agree process and methodology to map and identify necessary repairs including documentation
6. Guideline /Smec/PES Discuss and agree process for supervision/inspection/QA and sign off.
7. Guideline/PES agree process to reinstate the works and hand back operation to TCCS.



8. MM LRI to inform team of other requirements before works commence (ie Comms, HWW ETC)

N:B MM will inform the team of the notification he has given to TCCS of the impending works

Nick Taylor | Senior Project Officer | Civil Infrastructure

**Phone 02 6207 0118** | Mobile 0451 449 331 [Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)

Infrastructure Finance Capital Works Chief Minister, Treasury and Economic Development Directorate ACT Government

Level 2 Nature Conservation House, 186 Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Sent:** 01/02/2019 4:50 PM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Subject:** FW: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]  
**Attachments:** RE: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]

Nick,

Based on the emails below and attached can you please advise TCCS (Road Maintenance) – Noreen Vu (cc Mynul Chowdhury), that we require Isabella Weir to be lowered as follows.

- From 14/02/19 for approximately nine months the water level will be lowered from its current level of 574.6 to 574.2 ie 400mm lower than the existing water level. Note that the water will have to be lowered temporary (ie for about one day) to 573.8 (an additional 400mm, ie 800mm below the current level) as a safety factor while the stop boards are being removed. Once the boards are removed the valve will be closed and the pond will fill back up to 574.2 (ie 400mm below existing) where it will remain for nine months. This is to allow the wetlands to be weeded and the dead plants replaced and the wetlands placed onto and off consolidation. Alluvium has agreed with this approach (see attached).
- From mid-March for approximately three weeks Isabella pond to be completely drained to allow repairs to the weir wall. The exact timing and duration of the pond emptying will depend on the weather leading up to and during the repair work. This complete draining of the pond was always envisaged as part of the routine maintenance of the weir.

Can you please ask Noreen to advise her maintenance crews that Guideline will be in touch to get Tuggeranong Weir lowered a few days before the 14/02 to allow the downstream wall of Isabella Weir to be accessible, as well as to open the valve on Isabella Weir on 14/02. Guideline will again be in touch with the maintenance crews in mid March to open the Isabella valve and fully drain the pond. Noreen should also advise any other Directorates if she feels it necessary.

Note that we (ie TCCS LRI) will advise our comms team to undertake the appropriate community notifications.

Thanks,

Stuart

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: stuart.oxborrow@act.gov.au**  
 Capital Works, Transport Canberra and City Services Directorate | **ACT Government**  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Sch 2 2.2(a)(ii) [redacted]@guidelineact.com.au]  
**Sent:** Friday, 1 February 2019 2:07 PM  
**To:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Subject:** RE: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]

Hi Stuart,

Sch 2 2.2(a)(ii) [redacted] indicated yesterday that the pond will drain over 2-3 days. I estimated programme is:

- Day 1-3 Drain Pond (Open Valves on a Friday)
- Day 4-8 Complete Repairs (Commence Repairs on Monday, Completed by the Thursday)
- Day 9 Close Valves

The rate at which the pond fills be complexly dependant on rain. A 10-15mm rain event may indeed fill the pond in 1 day.

Kind regards,

Sch 2 2.2(a)(ii)

**Sch 2 2.2(a)(ii) | Project Manager**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [Sch 2 2.2\(a\)\(ii\).@guidelineact.com.au](mailto:Sch 2 2.2(a)(ii).@guidelineact.com.au)

M: Sch 2 2.2(a)(ii)




---

**From:** Oxborrow, Stuart [<mailto:Stuart.Oxborrow@act.gov.au>]

**Sent:** Friday, 1 February 2019 2:00 PM

**To:** Sch 2 2.2(a)(ii)

**Cc:** Taylor, Nick; Sch 2 2.2(a)(ii); McGrath, Michael

**Subject:** RE: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]

Sch 2 2.2(a)(ii)

How long do you envisage the pond to be completely lowered to do the wall repairs, based on our discussions with Smec yesterday. (Sch 2 2.2(a)(ii) will issue minutes shortly)

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502 | Mobile 0401 333 179 | Email:** [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)

Capital Works, Transport Canberra and City Services Directorate | ACT Government

GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Sch 2 2.2(a)(ii) [@guidelineact.com.au](mailto:Sch 2 2.2(a)(ii).@guidelineact.com.au)

**Sent:** Thursday, 31 January 2019 10:05 AM

**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>

**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; Sch 2 2.2(a)(ii) [@pes.net.au](mailto:Sch 2 2.2(a)(ii).@pes.net.au); McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>

**Subject:** RE: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]

Hi Stuart,

I will lock in the repairs of the wall as soon as the repair method is agreed with SMEC, this is likely to be in mid-March.

The water will remain at 574.20 to ensure all the plants can be established and off consolidation. The current target is still August-September 2019 pending release the release from Consolidation.

Kind regards,

Sch 2 2.2(a)(ii)

**Sch 2 2.2(a)(ii) | Project Manager**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [Sch 2 2.2\(a\)\(ii\).@guidelineact.com.au](mailto:Sch 2 2.2(a)(ii).@guidelineact.com.au)

M: Sch 2 2.2(a)(ii)



**From:** Oxborrow, Stuart [<mailto:Stuart.Oxborrow@act.gov.au>]  
**Sent:** Thursday, 31 January 2019 8:47 AM  
**To:** Matthew Treloar  
**Cc:** Taylor, Nick; [Sch 2 2.2\(a\)\(ii\)](#); McGrath, Michael  
**Subject:** RE: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]

[Sch 2 2.2\(a\)](#)

We are currently going through the various notifications and seeking approval from stakeholders about your proposed pond lowering mentioned below.

Can you also please advise the anticipated dates for the complete lowering of pond for the wall repairs. We will need to put out a media release and include all the proposed dates for the pond lowering – ie the partial lowering mentioned below and the complete lowering for the repairs.

As part of this, can you also please advise how long you think the pond will be kept at 574.20 as mentioned below.

Thanks,

Stuart

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** [Sch 2 2.2\(a\)\(ii\)](#) [@guidelineact.com.au](#)  
**Sent:** Tuesday, 29 January 2019 11:23 AM  
**To:** [Sch 2 2.2\(a\)\(ii\)](#) [@pes.net.au](#)  
**Cc:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Subject:** Lowering Plan for Wetlands Consolidation Works

Hi [Sch 2 2.2\(a\)](#), Niklas,

As discussed onsite, the proposed start date to lower the water levels for the Wetlands works is the 14<sup>th</sup> of February.

The Weir itself will need to be lowered to RL 573.8 to allow a 400mm buffer to the underside of the stop boards. The stop boards can be removed using ladders from the downstream side. To access the downstream side, the area between the Isabella Weir Upgrade and the Tuggeranong Weir are also to be lowered to RL 569.4.

Once the weir stop logs are removed, the weir will balance to RL 574.20 and the wetlands will then be fully accessible for the weeding and planting works commence the Week Commencing 18<sup>th</sup> February.

Can you please confirm your acceptable to the proposed levels and dates shown attached?

Kind regards,

[Sch 2 2.2\(a\)\(ii\)](#)

**[Sch 2 2.2\(a\)\(ii\)](#) | Project Manager**  
 16B Bass Street, Queanbeyan NSW 2620  
 PO Box 537, Queanbeyan NSW 2620  
 E: [Sch 2 2.2\(a\)\(ii\)](#) [@guidelineact.com.au](mailto:@guidelineact.com.au)

M: Sch 2 2.2(a)(ii)



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-----

**From:** "Sch 2 2.2(a)(ii)" <[redacted]@alluvium.com.au>  
**Sent:** 01/02/2019 5:17 AM  
**To:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Cc:** "Taylor, Nick" <Nick.Taylor@act.gov.au>; "McGrath, Michael" <Michael.McGrath@act.gov.au>; Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>  
**Subject:** RE: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]

Hi [redacted],

No we do not have any problems with this approach and have used a very similar approach on a number of other wetlands/jobs.

It's pretty common practice to drop the level during the establishment phase and then rise it slowly over time.

Only thing to keep an eye on is any scour around the concrete weir between the sediment pond and first wetland pool in the northern wetland.

Regards

Sch 2 2.2(a)(ii) | Alluvium Consulting  
 W Sch 2 2.2(a)(ii)  
 E [stuart.cleven@alluvium.com.au](mailto:stuart.cleven@alluvium.com.au)

---

**From:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Sent:** Friday, 1 February 2019 3:55 PM  
**To:** Sch 2 2.2(a)(ii) <[redacted]@alluvium.com.au>  
**Cc:** Taylor, Nick <Nick.Taylor@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>; Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>  
**Subject:** FW: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]

Hi [redacted],

The Contractor at Isabella Weir has proposed lowering the pond to 574.2 (ie the bottom of the slot in the weir) to allow them to spray the weeds in the wetlands and replace the dead plants, some of which are currently underwater (the pond and wetland are currently set at 574.6 and 574.5 respectively as per the attached email).

They propose to leave the pond and wetlands at 574.2 until they get the wetlands onto and off consolidation (ie for approx. 8 months), and irrigate those plants above 574.2. They are concerned that the new plants to be planted will drown and not be able to establish themselves if the water level is brought back up 574.5 immediately after weeding and replanting.

Do you see any problems with this proposal (for example, the plants do not go through the consolidation period in their ultimate flooded arrangement). Ultimately, it is the Contractor's responsibility to get the plants onto and off consolidation how they best see fit. However if we have any concerns we can certainly raise these with them beforehand.

Your early reply would be appreciated.

Thanks,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** Sch 2 2.2(a)(ii) [redacted]@guidelineact.com.au]  
**Sent:** Thursday, 31 January 2019 10:05 AM  
**To:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Cc:** Taylor, Nick <Nick.Taylor@act.gov.au>; Sch 2 2.2(a)(ii) [redacted]@pes.net.au>; McGrath, Michael <Michael.McGrath@act.gov.au>  
**Subject:** RE: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]

Hi [redacted]

I will lock in the repairs of the wall as soon as the repair method is agreed with SMEC, this is likely to be in mid-March.

The water will remain at 574.20 to ensure all the plants can be established and off consolidation. The current target is still August-September 2019 pending release the release from Consolidation.

Kind regards,

[redacted]

Sch 2 2.2(a)(ii) | **Project Manager**  
 16B Bass Street, Queanbeyan NSW 2620  
 PO Box 537, Queanbeyan NSW 2620  
 E: [redacted]@guidelineact.com.au  
 M: Sch 2 2.2(a)(ii) [redacted]




---

**From:** Oxborrow, Stuart [<mailto:Stuart.Oxborrow@act.gov.au>]  
**Sent:** Thursday, 31 January 2019 8:47 AM  
**To:** Sch 2 2.2(a)(ii) [redacted]  
**Cc:** Taylor, Nick; Sch 2 2.2(a)(ii) [redacted]; McGrath, Michael  
**Subject:** RE: Lowering Plan for Wetlands Consolidation Works [SEC=UNCLASSIFIED]

[redacted]

We are currently going through the various notifications and seeking approval from stakeholders about your proposed pond lowering mentioned below.

Can you also please advise the anticipated dates for the complete lowering of pond for the wall repairs. We will need to put out a media release and include all the proposed dates for the pond lowering – ie the partial lowering mentioned below and the complete lowering for the repairs.

As part of this, can you also please advise how long you think the pond will be kept at 574.20 as mentioned below.

Thanks,

Stuart

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email:** [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Sch 2 2.2(a)(ii) [redacted]@guidelineact.com.au]  
**Sent:** Tuesday, 29 January 2019 11:23 AM  
**To:** [redacted]@pes.net.au>

Cc: Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
Subject: Lowering Plan for Wetlands Consolidation Works

Hi [redacted], Niklas,

As discussed onsite, the proposed start date to lower the water levels for the Wetlands works is the 14<sup>th</sup> of February.

The Weir itself will need to be lowered to RL 573.8 to allow a 400mm buffer to the underside of the stop boards. The stop boards can be removed using ladders from the downstream side. To access the downstream side, the area between the Isabella Weir Upgrade and the Tuggeranong Weir are also to be lowered to RL 569.4.

Once the weir stop logs are removed, the weir will balance to RL 574.20 and the wetlands will then be fully accessible for the weeding and planting works commence the Week Commencing 18<sup>th</sup> February.

Can you please confirm your acceptable to the proposed levels and dates shown attached?

Kind regards,

[redacted]

Sch 2 2.2(a)(ii) | Project Manager

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [redacted]@guidelineact.com.au

M: [redacted]



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This email, and any attachments, may be confidential and also privileged. If you are not the intended recipient, please notify the sender and delete all copies of this transmission along with any attachments immediately. You should not copy or use it for any purpose, nor disclose its contents to any other person.  
-----



**From:** "Vu, Noreen" <Noreen.Vu@act.gov.au>  
**Sent:** 04/02/2019 11:50 AM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "Chowdhury, Mynul" <Mynul.Chowdhury@act.gov.au>; "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "McGrath, Michael" <Michael.McGrath@act.gov.au>; "Skaines, Greg" <Greg.Skaines@act.gov.au>; "Chester, Heath" <Heath.Chester@act.gov.au>; "Gilles, Jennie" <Jennie.Gilles@act.gov.au>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Nick for your email,

In terms of levels, I'll just run it past the EPA to ensure there is no issues. **Heath**, as discussed can you please have a look at the email below.

**Nick**, I also just want to confirm that what is proposed won't have any impacts on any fish stocking in the area which I understand occurred over January in Upper Stranger Pond. I am unsure if EPSDD have stocked fish anywhere else, so can your project team just ensure that there are no other fishy surprises.

Once confirmed on the first two points, I am happy to have our contractor (Sch 2 2.2(a)(ii)) go out to assist you.

Thanking you.

Many thanks, Noreen

Noreen Vu

Assistant Director, Environmental Services

Phone 02 6205 0746 | M: 0434 780 039

Roads Maintenance | **Roads ACT** | Transport Canberra and City Services Directorate | **ACT Government**

255 Canberra Avenue, Fyshwick | PO Box 777 Fyshwick ACT 2609

---

**From:** Taylor, Nick  
**Sent:** Monday, 4 February 2019 9:19 AM  
**To:** Vu, Noreen <Noreen.Vu@act.gov.au>  
**Cc:** Chowdhury, Mynul <Mynul.Chowdhury@act.gov.au>; Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>  
**Subject:** Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Good Morning Noreen

My name is Nick Taylor (IFCW) and I'm the Project Officer for the Isabella Weir/Wetland Project, acting on behalf of my clients, Michael McGrath and Stuart Oxborrow from Land Release Infrastructure (TCCS). I would like to give notice of the intention to execute programmed works and maintenance works, to both the Wetlands and the Weir at Isabella Pond. Please see below provisional timelines and brief methodology for the works.

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We would advise that Guideline (The Contractor executing the Works) will be in touch with your organisation, to have Tuggeranong Weir lowered a few days before the 14/02 to allow the downstream wall of Isabella Weir to be accessible, as well as to open the valve on Isabella Weir on 14/02. Guideline will again be in touch with the maintenance crews in mid-March to open the Isabella valve and fully drain the pond. Please could you advise any other Directorates if you feel it necessary to do so?

Note that we (i.e. IFCW, TCCS LRI) will advise our Comms team to undertake the appropriate community notifications. I look forward to working with and you our other stakeholders to facilitate this request so we are best able to conclude the works successfully.

Regards Nick

Nick Taylor | Senior Project Officer | Civil Infrastructure

**Phone 02 6207 0118** | Mobile 0451 449 331 [Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)

Infrastructure Finance Capital Works Chief Minister, Treasury and Economic Development Directorate ACT Government

Level 2 Nature Conservation House, 186 Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** "Vu, Noreen" <Noreen.Vu@act.gov.au>  
**Sent:** 04/02/2019 3:36 PM  
**To:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Cc:** "Taylor, Nick" <Nick.Taylor@act.gov.au>; "McGrath, Michael" <Michael.McGrath@act.gov.au>; "Chowdhury, Mynul" <Mynul.Chowdhury@act.gov.au>; "Skaines, Greg" <Greg.Skaines@act.gov.au>; "Chester, Heath" <Heath.Chester@act.gov.au>; "Gilles, Jennie" <Jennie.Gilles@act.gov.au>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Stuart,

I have no further issues on this. I have known other sites where we've tried to lower water levels to then be told later on there were fish releases. So it is always good to double check these things.

But if you feel confident the field officers listened to the instructions, then I think we are good to go.

Many thanks, Noreen

**Noreen Vu**

Assistant Director, Environmental Services

**Phone 02 6205 0746 | M: 0434 780 039**

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**Cc:** Taylor, Nick <Nick.Taylor@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>; Chowdhury, Mynul <Mynul.Chowdhury@act.gov.au>; Skaines, Greg <Greg.Skaines@act.gov.au>; Chester, Heath <Heath.Chester@act.gov.au>; Gilles, Jennie <Jennie.Gilles@act.gov.au>  
**Subject:** FW: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Hi Noreen,

The lowering of Isabella Pond will not affect the water levels or fingerlings in Upper Stranger Pond.

Also, attached is confirmation from TCCS (Jeremy Smith) to EPSDD (Rebecca McLeod and Margaret Kitchen) that TCCS planned to lower Isabella Pond in February 2019 for maintenance so no restocking of fingerlings in Isabella Pond should be undertaken in January. As far as I am aware, no restocking of Isabella Pond took place following this correspondence.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**

Capital Works, Transport Canberra and City Services Directorate | **ACT Government**

GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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**Sent:** Monday, 4 February 2019 11:52 AM  
**To:** Vu, Noreen <Noreen.Vu@act.gov.au>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

No issues

Regards

Heath Chester | Manager, Water Regulation  
 Phone: +61 2 62075728 | [heath.chester@act.gov.au](mailto:heath.chester@act.gov.au)  
 Office of the Environment Protection Authority | Access Canberra | ACT Government  
 | GPO Box 158 Canberra ACT 2601 | <http://www.act.gov.au/accesscbr>




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**Sent:** Monday, 4 February 2019 11:50 AM  
**To:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Chester, Heath <[Heath.Chester@act.gov.au](mailto:Heath.Chester@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>  
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Many thanks, Noreen

**Noreen Vu**

Assistant Director, Environmental Services

**Phone 02 6205 0746 | M: 0434 780 039**

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**Sent:** Monday, 4 February 2019 9:19 AM  
**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>  
**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>  
**Subject:** Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

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Regards Nick

Nick Taylor | Senior Project Officer | Civil Infrastructure

**Phone 02 6207 0118** | Mobile 0451 449 331 [Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)

Infrastructure Finance Capital Works Chief Minister, Treasury and Economic Development Directorate ACT Government

Level 2 Nature Conservation House, 186 Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Sent:** 06/02/2019 4:53 PM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Subject:** FW: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Nick,

Based on the confirmation below from Noreen and Heath, can you please ask [Sch 2 2.2(a)] to advise [Sch 2 2.2(a)(ii)] that the partial and total lowering of the pond at the dates nominated are accepted. [Sch 2 2.2(a)] will need to get in touch with [Sch 2 2.2(a)(ii)] as referenced below. [Sch 2 2.2(a)] should get in touch with [Sch 2 2.2(a)(i)] fairly early, to give him plenty of notice to lower both Tuggeranong Pond and Isabella Pond.

Thanks,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: stuart.oxborrow@act.gov.au**  
Capital Works, Transport Canberra and City Services Directorate | **ACT Government**  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Vu, Noreen  
**Sent:** Wednesday, 6 February 2019 3:28 PM  
**To:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Cc:** McGrath, Michael <Michael.McGrath@act.gov.au>; Taylor, Nick <Nick.Taylor@act.gov.au>; Skaines, Greg <Greg.Skaines@act.gov.au>; [Sch 2 2.2(a)(ii)]  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Stuart  
[Sch 2 2.2(a)(ii)] from Rural Services will be your best contact. [Sch 2 2.2(a)(ii)]

Please loop Greg Skaines and me into any email conversations so we are across it.

Many thanks, Noreen

**Noreen Vu**  
Assistant Director, Environmental Services  
**Phone 02 6205 0746 | M: 0434 780 039**  
Roads Maintenance | **Roads ACT** | Transport Canberra and City Services Directorate | **ACT Government**  
255 Canberra Avenue, Fyshwick | PO Box 777 Fyshwick ACT 2609

---

**From:** Oxborrow, Stuart  
**Sent:** Wednesday, 6 February 2019 3:21 PM  
**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>  
**Cc:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Noreen,

Can you please provide the contact details of the maintenance crews that Guideline should be in touch with to arrange the pond lowering. Also, can you please advise the maintenance crews that Guideline will be getting in touch with them to lower the pond level, and that this is approved.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
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**From:** Vu, Noreen  
**Sent:** Monday, 4 February 2019 3:37 PM  
**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>  
**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Chester, Heath <[Heath.Chester@act.gov.au](mailto:Heath.Chester@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>  
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**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

No issues

Regards

Heath Chester | Manager, Water Regulation

Phone: +61 2 62075728 | [heath.chester@act.gov.au](mailto:heath.chester@act.gov.au)

Office of the Environment Protection Authority | Access Canberra | ACT Government

| GPO Box 158 Canberra ACT 2601 | <http://www.act.gov.au/accesscbr>




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**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Chester, Heath <[Heath.Chester@act.gov.au](mailto:Heath.Chester@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>

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**From:** "Sch 2 2.2(a)(ii)" <[redacted]@guidelineact.com.au>  
**Sent:** 07/02/2019 5:42 AM  
**To:** "Sch 2 2.2(a)(ii)" <[redacted]@pes.net.au>  
**Cc:** "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Subject:** RE: contact references [SEC=UNCLASSIFIED]

Thanks for the confirmation [redacted]

I will coordinate the initial lowering with [redacted] and target this to happen on the 14<sup>th</sup> Feb.

Should some informal signage be required, (A3 laminated) please let me know.

Kind regards,

[redacted]

---

**From:** [redacted] <[redacted]@pes.net.au>  
**Sent:** Thursday, 7 February 2019 3:06 PM  
**To:** [redacted]  
**Cc:** 'Taylor, Nick'; 'Oxborrow, Stuart'  
**Subject:** RE: contact references [SEC=UNCLASSIFIED]

Hi [redacted],

I am confirming our discussion over the phone that TCCS approved the initial lowering of the pond water level to 574.20 for planting purpose. We won't need media release for the first lot of work although the TCCS may ask to put up few A3 laminated signs for the first lowering that to be attached to the fencing surrounding the Weir. We will confirm if that is required.

As discussed, GLA to confirm the date for the entire pond water lowering for a second lot of works. TCCS requires a minimum of two weeks notice ahead of the complete draining of the pond.

Regards

[redacted]

Principal's Authorised Person (PAP)  
 Professional Engineering Service Pty Limited ACN 057 633 897  
 Mobile - [redacted]




---

**From:** [redacted] <[redacted]@pes.net.au>  
**Sent:** Thursday, 7 February 2019 2:28 PM  
**To:** [redacted] <[redacted]@guidelineact.com.au>  
**Cc:** 'Taylor, Nick' <Nick.Taylor@act.gov.au>; 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>  
**Subject:** FW: contact references [SEC=UNCLASSIFIED]

[redacted]

Please see the response from Noreen advising to contact [redacted] from Rural Service. In addition to contact for [redacted] as discussed in a meeting last week, TCCS will require notice of minimum two weeks in advance before

the entire pond to be emptied. TCCS require notification for communication team for the media release. Would you please provide dates for lowering the partially the pond and the entire pond?

Thanks

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile - Sch 2 2.2(a)(ii)




---

**From:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Sent:** Thursday, 7 February 2019 2:13 PM  
**To:** Sch 2 2.2(a)(ii) <[Sch 2 2.2\(a\)\(ii\)@pes.net.au](mailto:Sch 2 2.2(a)(ii)@pes.net.au)>  
**Cc:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>  
**Subject:** contact references [SEC=UNCLASSIFIED]

Sch 2 2.2(a)(ii)

Please see the comment below and advise Matt accordingly

Based on the confirmation below from Noreen and Heath, can you please ask Sch 2 2.2(a)(ii) to advise Sch 2 2.2(a)(ii) that the partial and total lowering of the pond at the dates nominated are accepted. Matt will need to get in touch with Sch 2 2.2(a)(ii) as referenced below. Matt should get in touch with Peter fairly early, to give him plenty of notice to lower both Tuggeranong Pond and Isabella Pond.

Sch 2 2.2(a)(ii) from Rural Services will be your best contact. Sch 2 2.2(a)(ii)

Regards Nick

Nick Taylor | Senior Project Officer | Civil Infrastructure

Phone 02 6207 0118 | Mobile 0451 449 331 [Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)

Infrastructure Finance Capital Works Chief Minister, Treasury and Economic Development Directorate ACT Government

Level 2 Nature Conservation House, 186 Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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 This email, and any attachments, may be confidential and also privileged. If you are not the intended recipient, please notify the sender and delete all copies of this transmission along with any attachments immediately. You should not copy or use it for any purpose, nor disclose its contents to any other person.  
 -----

**From:** "Stellios, George" <George.Stellios@act.gov.au>  
**Sent:** 09/02/2019 3:17 PM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** RE: Meeting Minutes 31 Jan 2019 - Cracks Repair Method [SEC=UNCLASSIFIED]

Thanks Nick.

- Can you pls speak to me if SMEC proposes the use of Megapoxy HX. It's their technical issue to address. I just want to see the documentation they provide us to support its use.
- Can you pls provide me with the media release when you get it (it's a TCCS issue, I just want to read it)

---

**From:** Taylor, Nick  
**Sent:** Friday, 8 February 2019 9:48 AM  
**To:** Stellios, George <George.Stellios@act.gov.au>  
**Subject:** FW: Meeting Minutes 31 Jan 2019 - Cracks Repair Method [SEC=UNCLASSIFIED]

fyi

---

**From:** [Sch 2 2.2(a)(ii)] <[redacted]@pes.net.au>  
**Sent:** Thursday, 7 February 2019 4:16 PM  
**To:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>; Taylor, Nick <Nick.Taylor@act.gov.au>; [Sch 2 2.2(a)(ii)] <[redacted]@smec.com>; [Sch 2 2.2(a)(ii)] <[redacted]@smec.com>; [Sch 2 2.2(a)(ii)] <[redacted]@guidelineact.com.au>  
**Cc:** [Sch 2 2.2(a)(ii)] <[redacted]@pes.net.au>  
**Subject:** Meeting Minutes 31 Jan 2019 - Cracks Repair Method

Hi Gents,

Below are notes from the meeting held on 31 Jan 2019 to discuss the cracks repair methodology. Can SMEC and GLA confirm the agreement of the minutes by Monday 11 Feb 2019?

- **Present:**

- [Sch 2 2.2(a)(ii)] [PES], [Sch 2 2.2(a)(ii)] (GLA), Stuart Oxborrow (SO) [TCCS], [Sch 2 2.2(a)(ii)] [SMEC]; Michael McGrath (MM) [TCCS], [Sch 2 2.2(a)(ii)] [SMEC];
- Apologies – Nick Taylor

- **Crack sealant**

*Issue:*

- GLA have submitted a repair methodology, which is generally acceptable but it is not clear whether Megapoxy H or HX should be used.
- Megapoxy H is water certified (ie can be used against wet or damp surfaces). Megapoxy HX is not water certified.

*Agreed Action:*

- SMEC to advise whether Megapoxy H or HX is to be used.

- **Staining on downstream face of wall.**

*Issue:*

- Need to determine the cause and treatment of the staining (possibly rust) on the downstream labyrinth wall.

*Agreed action:*

- Use cover meter over stained area to determine if there is adequate cover to the reinforcement.
- Regardless of cover, thoroughly clean the stained surface then inject Megapoxy H or HX (SMEC to confirm which product – see above).
- If cover to reinforcement is below that specified on the design, then apply protective surface coating. A two pack product similar to that used in the wet well may be suitable.
- GLA to confirm the product used on the wet wall. SMEC to advise if the product is suitable.

- If cover to reinforcement is adequate, then only injection with Megapoxy is required.

- **Draining of pond and treatment of upstream cracks.**

*Issue:*

- SMEC require pedestrian access to the upstream wall face to inspect cracks. There is possibility that silt may have built up to 1m deep (or more) against the wall

*Agreed Action:*

- GLA to lower the pond water level as low as possible. GLA to confirm method to allow people to walk and observe the upstream wall.
- SMEC to observe cracks on upstream face of wall while water is dropping and while the face is drying.
- Check for corresponding cracks on downstream side of wall (relative to the upstream side) while the upstream face is drying.
- If corresponding cracks downstream are visible, then SMEC require repairs to the wall on the upstream side.
- If corresponding cracks downstream do not exist, then no need to inject epoxy from the upstream side.

- **Treatment of downstream cracks.**

*Issue:*

- Whether the maximum epoxy application pressure of 20 psi is enough to withstand the hydrostatic pressure of wet silt from the upstream side.

*Agreed Action – below silt line.*

- SMEC to confirm if the epoxy pressure exceeds the hydrostatic pressure from the upstream side.
- If epoxy pressure exceeds hydrostatic pressure then inject using approved product and procedure.
- If epoxy pressure is less than the hydrostatic pressure then GLA to propose an alternative repair method.

*Agreed Action – above silt line.*

- Inject epoxy from downstream side and observe the dry face of upstream side to see if any epoxy comes out on the upstream side.

- **Treatment of water-stop.**

*Issue:*

- How the leakage at the old/new vertical joint (likely past the waterstop) is treated.

*Agreed Action*

- Check from downstream side whether the water leaks slow down as pond level is dropping.
- Agreed to inject the epoxy for the full height of the joint from the downstream side at both joint locations. GLA to confirm spacing of injection points.

- **QA**

- GLA advised that the stop logs will be removed on 14 Feb. SMEC and PES to be onsite when pond level is going down to stop log level, to check if stop log slot is leaking.
- GLA to confirm the date for water lowering down to silt level. SMEC and PES to be present during operation of crack injection
- SMEC to confirm beforehand that the above repair methodology is acceptable.
- SMEC to confirm that if the above repairs are undertaken successfully (i.e.; the leaks cease) then they will sign off and endorse the successful completion of the repairs.

- **Comms**

- Media Release to be managed by TCCS.
- GLA to advise at least 2 weeks in advance before entire pond to be emptied.

Please contact me if you have any queries.

Regards

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile - Sch 2 2.2(a)(ii)



**From:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Sent:** 11/02/2019 1:18 PM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Subject:** FW: Meeting Minutes 31 Jan 2019 - Cracks Repair Method [SEC=UNCLASSIFIED]

Nick

As requested the SMEC approvals for the planned repair works on the weir. Stuart Oxborrow will forward the comms developed with our comms area for the lowering of the pond.

Regards

Michael

**Michael McGrath | Director – Land Release Infrastructure**  
**Phone 02 6207 1491 | Mobile 0403 939 920 | Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)**  
 Capital Works, Transport Canberra and City Services Directorate | **ACT Government**  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** [Sch 2 2.2(a)(ii)]@smec.com]  
**Sent:** Monday, 11 February 2019 11:17 AM  
**To:** [Sch 2 2.2(a)(ii)]@pes.net.au>; Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>; Taylor, Nick <Nick.Taylor@act.gov.au>; [Sch 2 2.2(a)(ii)]@smec.com>; [Sch 2 2.2(a)(ii)]@guidelineact.com.au>  
**Subject:** RE: Meeting Minutes 31 Jan 2019 - Cracks Repair Method

Stuart,

Please find following comments and information which was raised during meeting held in our office on 31 Jan 2019.

1. Suitable water level for the 20 psi the equivalent head of water at 20psi is 14m. So water pressure on the upstream side should not prevent full penetration of the injected epoxy.
2. Suitability of Megapoxy H or Hx - We do not have any preference for either Megapoxy H or Hx if it flows full length of the crack. However it would appear prudent, to use the product which is suitable for locations where water is likely to be present.
3. Repair material for low cover areas – for small areas – Masterprotect 8000CI  
 Other areas – Masterprotect S5300CI

**Best Regards,**

[Sch 2 2.2(a)(ii)]  
 Senior Engineer - Structures  
 SMEC (Member of the Surbana Jurong Group)  
 T +[Sch 2 2.2(a)(ii)]

---

**From:** [Sch 2 2.2(a)(ii)]@pes.net.au>  
**Sent:** Thursday, 7 February 2019 4:16 PM  
**To:** Oxborrow, Stuart <[stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)>; 'McGrath, Michael' <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; 'Taylor, Nick' <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; [Sch 2 2.2(a)(ii)]@smec.com>; [Sch 2 2.2(a)(ii)]@smec.com>; [Sch 2 2.2(a)(ii)]@guidelineact.com.au>  
**Cc:** [Sch 2 2.2(a)(ii)]>; [Sch 2 2.2(a)(ii)]@pes.net.au>  
**Subject:** Meeting Minutes 31 Jan 2019 - Cracks Repair Method

Hi Gents,

Below are notes from the meeting held on 31 Jan 2019 to discuss the cracks repair methodology. Can SMEC and GLA confirm the agreement of the minutes by Monday 11 Feb 2019?

- **Present:**

- Sch 2 2.2(a)(ii) [PES], Sch 2 2.2(a)(ii) (GLA), Stuart Oxborrow (SO) [TCCS], Sch 2 2.2(a)(ii) [SMEC]; Michael McGrath (MM) [TCCS], Sch 2 2.2(a)(ii) [SMEC];
- Apologies – Nick Taylor

- **Crack sealant**

*Issue:*

- GLA have submitted a repair methodology, which is generally acceptable but it is not clear whether Megapoxy H or HX should be used.
- Megapoxy H is water certified (ie can be used against wet or damp surfaces). Megapoxy HX is not water certified.

*Agreed Action:*

- SMEC to advise whether Megapoxy H or HX is to be used.

- **Staining on downstream face of wall.**

*Issue:*

- Need to determine the cause and treatment of the staining (possibly rust) on the downstream labyrinth wall.

*Agreed action:*

- Use cover meter over stained area to determine if there is adequate cover to the reinforcement.
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- GLA to confirm the product used on the wet wall. SMEC to advise if the product is suitable.
- If cover to reinforcement is adequate, then only injection with Megapoxy is required.

- **Draining of pond and treatment of upstream cracks.**

*Issue:*

- SMEC require pedestrian access to the upstream wall face to inspect cracks. There is possibility that silt may have built up to 1m deep (or more) against the wall

*Agreed Action:*

- GLA to lower the pond water level as low as possible. GLA to confirm method to allow people to walk and observe the upstream wall.
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- Check for corresponding cracks on downstream side of wall (relative to the upstream side) while the upstream face is drying.
- If corresponding cracks downstream are visible, then SMEC require repairs to the wall on the upstream side.
- If corresponding cracks downstream do not exist, then no need to inject epoxy from the upstream side.

- **Treatment of downstream cracks.**

*Issue:*

- Whether the maximum epoxy application pressure of 20 psi is enough to withstand the hydrostatic pressure of wet silt from the upstream side.

*Agreed Action – below silt line.*

- SMEC to confirm if the epoxy pressure exceeds the hydrostatic pressure from the upstream side.
- If epoxy pressure exceeds hydrostatic pressure then inject using approved product and procedure.
- If epoxy pressure is less than the hydrostatic pressure then GLA to propose an alternative repair method.

*Agreed Action – above silt line.*

- Inject epoxy from downstream side and observe the dry face of upstream side to see if any epoxy comes out on the upstream side.

- **Treatment of water-stop.**

*Issue:*

- How the leakage at the old/new vertical joint (likely past the waterstop) is treated.



**Agreed Action**

- Check from downstream side whether the water leaks slow down as pond level is dropping.
- Agreed to inject the epoxy for the full height of the joint from the downstream side at both joint locations. GLA to confirm spacing of injection points.

**• QA**

- GLA advised that the stop logs will be removed on 14 Feb. SMEC and PES to be onsite when pond level is going down to stop log level, to check if stop log slot is leaking.
- GLA to confirm the date for water lowering down to silt level. SMEC and PES to be present during operation of crack injection
- SMEC to confirm beforehand that the above repair methodology is acceptable.
- SMEC to confirm that if the above repairs are undertaken successfully (i.e.; the leaks cease) then they will sign off and endorse the successful completion of the repairs.

**• Comms**

- Media Release to be managed by TCCS.
- GLA to advise at least 2 weeks in advance before entire pond to be emptied.

Please contact me if you have any queries.

Regards

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile - Sch 2 2.2(a)(ii)



**From:** "Stellios, George" <George.Stellios@act.gov.au>  
**Sent:** 11/02/2019 1:03 PM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks.

Let me know if there is any significant public comments that the signage was not enough. But I agree, it's up to TCCS to decide upon the comms.

---

**From:** Taylor, Nick  
**Sent:** Monday, 11 February 2019 12:55 PM  
**To:** Stellios, George <George.Stellios@act.gov.au>  
**Subject:** FW: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

fyi

---

**From:** Oxborrow, Stuart  
**Sent:** Friday, 8 February 2019 4:55 PM  
**To:** Wadwell, Emily <Emily.Wadwell@act.gov.au>  
**Cc:** Taylor, Nick <Nick.Taylor@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>; Riley, Renee <Renee.Riley@act.gov.au>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Hi Emily,

This sounds fine. If you can get the signs drafted up and laminated, I can ask the Contractor to install them.

Thanks,

Stuart

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Wadwell, Emily  
**Sent:** Thursday, 7 February 2019 2:25 PM  
**To:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Cc:** Taylor, Nick <Nick.Taylor@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>; Riley, Renee <Renee.Riley@act.gov.au>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Stuart,

As discussed, we're suggesting that ahead of next Thursday's works we do some A3 laminated signage that can be attached to the fencing surrounding the weir. We don't think a media release is necessary for the first lot of works – it's going to be most noticeable to the people getting up and close so the signage will be much more useful in informing the public as opposed to a media release. Once the work is happening we'll ask for a few photos of the contractors doing the weeding/plant replacement and we'll do some social media. We'll also update the website.

Ahead of the complete draining in mid-March we will do a media release and touch on the above works too.

If you're happy with this approach, we'll draft up some signage and get it approved.

Let me know if you have any questions.

Thank you,  
Emily

---

**From:** Oxborrow, Stuart  
**Sent:** Thursday, 7 February 2019 1:02 PM  
**To:** Wadwell, Emily <[Emily.Wadwell@act.gov.au](mailto:Emily.Wadwell@act.gov.au)>  
**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>  
**Subject:** FW: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Hi Emily,

The email trail below highlights the various advice and approvals we have sought and received for the upcoming lowering of the Isabella Weir. I have highlighted the relevant sections.

Please call if you need anything further.

Regards,

Stuart

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Vu, Noreen  
**Sent:** Wednesday, 6 February 2019 3:28 PM  
**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>  
**Cc:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; **Sch 2 2.2(a)(ii)**  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Stuart

**Sch 2 2.2(a)(ii)** from Rural Services will be your best contact. **Sch 2 2.2(a)(ii)**

Please loop Greg Skaines and me into any email conversations so we are across it.

Many thanks, Noreen

**Noreen Vu**  
 Assistant Director, Environmental Services  
**Phone 02 6205 0746 | M: 0434 780 039**  
 Roads Maintenance | **Roads ACT** | Transport Canberra and City Services Directorate | **ACT Government**  
 255 Canberra Avenue, Fyshwick | PO Box 777 Fyshwick ACT 2609

---

**From:** Oxborrow, Stuart  
**Sent:** Wednesday, 6 February 2019 3:21 PM  
**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>

**Cc:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Noreen,

Can you please provide the contact details of the maintenance crews that Guideline should be in touch with to arrange the pond lowering. Also, can you please advise the maintenance crews that Guideline will be getting in touch with them to lower the pond level, and that this is approved.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)

Capital Works, Transport Canberra and City Services Directorate | **ACT Government**

GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Vu, Noreen

**Sent:** Monday, 4 February 2019 3:37 PM

**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>

**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Chester, Heath <[Heath.Chester@act.gov.au](mailto:Heath.Chester@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>

**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Stuart,

I have no further issues on this. I have known other sites where we've tried to lower water levels to then be told later on there were fish releases. So it is always good to double check these things.

But if you feel confident the field officers listened to the instructions, then I think we are good to go.

Many thanks, Noreen

**Noreen Vu**

Assistant Director, Environmental Services

**Phone 02 6205 0746 | M: 0434 780 039**

Roads Maintenance | **Roads ACT** | Transport Canberra and City Services Directorate | **ACT Government**

255 Canberra Avenue, Fyshwick | PO Box 777 Fyshwick ACT 2609

---

**From:** Oxborrow, Stuart

**Sent:** Monday, 4 February 2019 3:34 PM

**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>

**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Chester, Heath <[Heath.Chester@act.gov.au](mailto:Heath.Chester@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>

**Subject:** FW: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Hi Noreen,

The lowering of Isabella Pond will not affect the water levels or fingerlings in Upper Stranger Pond.

Also, attached is confirmation from TCCS (Jeremy Smith) to EPSDD (Rebecca McLeod and Margaret Kitchen) that TCCS planned to lower Isabella Pond in February 2019 for maintenance so no restocking of fingerlings in Isabella Pond should be undertaken in January. As far as I am aware, no restocking of Isabella Pond took place following this correspondence.

Regards,

**Stuart Oxborrow** | Senior Engineer – Land Release Infrastructure

Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)

Capital Works, Transport Canberra and City Services Directorate | ACT Government

GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** Chester, Heath

**Sent:** Monday, 4 February 2019 11:52 AM

**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>

**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>

**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

No issues

Regards

Heath Chester | Manager, Water Regulation

Phone: +61 2 62075728 | [heath.chester@act.gov.au](mailto:heath.chester@act.gov.au)

Office of the Environment Protection Authority | Access Canberra | ACT Government

| GPO Box 158 Canberra ACT 2601 | <http://www.act.gov.au/accesscbr>



**From:** Vu, Noreen

**Sent:** Monday, 4 February 2019 11:50 AM

**To:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>

**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Chester, Heath <[Heath.Chester@act.gov.au](mailto:Heath.Chester@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>

**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Nick for your email,

In terms of levels, I'll just run it pass the EPA to ensure there is no issues. **Heath**, as discussed can you please have a look at the email below.

**Nick**, I also just want to confirm that what is proposed won't have any impacts on any fish stocking in the area which I understand occurred over January in Upper Stranger Pond. I am unsure if EPSDD have stocked fish anywhere else, so can your project team just ensure that there are no other fishy surprises.

Once confirmed on the first two points, I am happy to have our contractor (Sch 2.2.2(a)(ii)) go out to assist you.

Thanking you.

Many thanks, Noreen

**Noreen Vu**

Assistant Director, Environmental Services

Phone 02 6205 0746 | M: 0434 780 039

Roads Maintenance | **Roads ACT** | Transport Canberra and City Services Directorate | ACT Government

255 Canberra Avenue, Fyshwick | PO Box 777 Fyshwick ACT 2609

**From:** Taylor, Nick  
**Sent:** Monday, 4 February 2019 9:19 AM  
**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>  
**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>  
**Subject:** Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Good Morning Noreen

My name is Nick Taylor(IFCW) and I'm the Project Officer for the Isabella Weir/Wetland Project, acting on behalf of my clients , Michael McGrath and Stuart Oxborrow from Land Release Infrastructure (TCCS). I would like to give notice of the intention to execute programmed works and maintenance works, to both the Wetlands and the Weir at Isabella Pond. Please see below provisional timelines and brief methodology for the works.

- From 14/02/19 for approximately nine months the water level will be lowered from its current level of 574.6 to 574.2 i.e. 400mm lower than the existing water level. Note that the water will have to be lowered temporary (i.e. for about one day) to 573.8 (an additional 400mm, i.e. 800mm below the current level) as a safety factor while the stop boards are being removed. Once the boards are removed the valve will be closed and the pond will fill back up to 574.2 (i.e. 400mm below existing) where it will remain for nine months. This is to allow the wetlands to be weeded and the dead plants replaced and the wetlands placed onto and off consolidation.
- From mid-March for approximately three weeks Isabella pond to be completely drained to allow repairs to the weir wall. The exact timing and duration of the pond emptying will depend on the weather leading up to and during the repair work. This complete draining of the pond was always envisaged as part of the routine maintenance of the weir.

We would advise that Guideline (The Contractor executing the Works) will be in touch with your organisation, to have Tuggeranong Weir lowered a few days before the 14/02 to allow the downstream wall of Isabella Weir to be accessible, as well as to open the valve on Isabella Weir on 14/02. Guideline will again be in touch with the maintenance crews in mid-March to open the Isabella valve and fully drain the pond. Please could you advise any other Directorates if you feel it necessary to do so?

Note that we (i.e. IFCW, TCCS LRI) will advise our Comms team to undertake the appropriate community notifications. I look forward to working with and you our other stakeholders to facilitate this request so we are best able to conclude the works successfully.

Regards Nick

Nick Taylor | Senior Project Officer | Civil Infrastructure  
**Phone 02 6207 0118** | Mobile 0451 449 331 [Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)  
Infrastructure Finance Capital Works Chief Minister, Treasury and Economic Development Directorate ACT Government  
Level 2 Nature Conservation House, 186 Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** "Sch 2 2.2(a)(ii)" <[redacted]@guidelineact.com.au>  
**Sent:** 15/02/2019 3:57 AM  
**To:** "Sch 2 2.2(a)(ii)" <[redacted]@pes.net.au>  
**Cc:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Harris, KimM" <KimM.Harris@act.gov.au>  
**Subject:** RE: Lowering Plan for Wetlands Consolidation Works

Hi [redacted]

I have been talking with Stuart on the phone.

I am chasing the contractor to confirm repairs can commence next week. I am meeting the repairer onsite on Monday at 10am.

Should I be able to confirm anything between now and then, I will let yourself and Stuart know.

As discussed with Stuart, all valves at the Weir's Wet Well have been closed fully. The wetland valves will now be opened and will lower to RL 574.28 this afternoon.

The stop boards still remain at RL 574.60 as the downstream access is flooded. I will have the stop boards removed on Monday at approx. 9am leaving the maximum water height to be RL 574.20.

Kind regards,

[redacted]

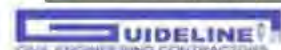
**Sch 2 2.2(a)(ii) | Project Manager**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [redacted]@guidelineact.com.au

M: [redacted]




---

**From:** [redacted]@pes.net.au]  
**Sent:** Friday, 15 February 2019 2:42 PM  
**To:** [redacted]  
**Cc:** 'Oxborrow, Stuart'; 'Taylor, Nick'; 'Harris, KimM'  
**Subject:** RE: Lowering Plan for Wetlands Consolidation Works

Hi [redacted]

I thought you sent an email to Nicholas from Roads ACT separate to the email below on 29 Jan 2019. I acknowledged that you did mention to me that [redacted] was supposed to check the pond yesterday afternoon. I am not sure whether [redacted] visited the pond yesterday or not. Irrespective the water has been dropped now and our Client will need to respond to Senior Management and organise a media.

Stuart has advised me that you will continue to lower the water level down to the silt level. And you will engage Xmplar to carry out the cracks repair work in a coming week.

To that effect, Stuart will advise the Comms today and put out some media. However, would please confirm the date for the repairs so we can arrange SMEC to be present onsite for the inspection?

Thanks

[redacted]

Principal's Authorised Person (PAP)  
 Professional Engineering Service Pty Limited ACN 057 633 897  
 Mobile - [Sch 2 2.2(a)(ii)]




---

**From:** [Sch 2 2.2(a)(ii)]@guidelineact.com.au>  
**Sent:** Friday, 15 February 2019 1:57 PM  
**To:** [Sch 2 2.2(a)(ii)]@pes.net.au>  
**Subject:** FW: Lowering Plan for Wetlands Consolidation Works

[Sch 2 2.2(a)(ii)]

Attached is the agreed plan for the lowering.

All discussions between myself and [Sch 2 2.2(a)(ii)] were for targeting 400mm below the stop boards. The discharge from the pipe was more efficient than estimated. The Penstock was fully opened at 8am and the Stop Valve was opened to approx. 30%.

The water level as inspected today around 9am had the water level approx. RL 572.8. The level dropped at a rate of approximately 72mm over the 24hr period.

Kind regards,

[Sch 2 2.2(a)(ii)]

**Sch 2 2.2(a)(ii) | Project Manager**  
 16B Bass Street, Queanbeyan NSW 2620  
 PO Box 537, Queanbeyan NSW 2620  
 E: [Sch 2 2.2(a)(ii)]@guidelineact.com.au  
 M: [Sch 2 2.2(a)(ii)]




---

**From:** [Sch 2 2.2(a)(ii)]  
**Sent:** Tuesday, 29 January 2019 11:22 AM  
**To:** [Sch 2 2.2(a)(ii)]  
**Cc:** 'Oxborrow, Stuart'; 'Taylor, Nick'  
**Subject:** Lowering Plan for Wetlands Consolidation Works

Hi [Sch 2 2.2(a)(ii)] Niklas,

As discussed onsite, the proposed start date to lower the water levels for the Wetlands works is the 14<sup>th</sup> of February.

The Weir itself will need to be lowered to RL 573.8 to allow a 400mm buffer to the underside of the stop boards. The stop boards can be removed using ladders from the downstream side. To access the downstream side, the area between the Isabella Weir Upgrade and the Tuggeranong Weir are also to be lowered to RL 569.4.



Once the weir stop logs are removed, the weir will balance to RL 574.20 and the wetlands will then be fully accessible for the weeding and planting works commence the Week Commencing 18<sup>th</sup> February.

Can you please confirm your acceptable to the proposed levels and dates shown attached?

Kind regards,

Sch 2 2.2(a)(i)

**Sch 2 2.2(a)(ii) | Project Manager**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [Sch 2 2.2\(a\)\(ii\)@guidelineact.com.au](mailto:Sch 2 2.2(a)(ii)@guidelineact.com.au)

M: Sch 2 2.2(a)(ii)



**From:** "Harris, KimM" <KimM.Harris@act.gov.au>  
**Sent:** 18/02/2019 9:28 AM  
**To:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Cc:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Hi Stuart,

I did see them all and that prompted me to let you know.

I do remember when we were there on to open the stop cock the general consensus was it would take some time to drain.

I guess the positive take away from all of this, TCCS now know how rapidly the water flows and how quickly it will drain.

[G:\Procurement Solutions\Civil\Civil Projects\Kim Harris\2017- 2018 Projects\22501 - Isabella Weir Upgrade \(JM, MB\)\Water Lowering 11219](G:\Procurement Solutions\Civil\Civil Projects\Kim Harris\2017- 2018 Projects\22501 - Isabella Weir Upgrade (JM, MB)\Water Lowering 11219)

Regards

*Kim Harris*

Kim Harris | Senior Project Officer | Civil Infrastructure & Capital Works Branch  
Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email KimM.Harris@act.gov.au  
Infrastructure Finance and Capital Works | Chief Minister, Treasury and Economic Development Directorate | ACT Government  
Level 2 Nature Conservation House, Cnr Benjamin Way and Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

 Please consider the environment before printing this e-mail. **Be Green** - read on screen

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**From:** Oxborrow, Stuart  
**Sent:** Monday, 18 February 2019 8:54 AM  
**To:** Harris, KimM <KimM.Harris@act.gov.au>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Kim,

Yes, this was done by the TCCS Road Maintenance when GLA asked them to lower it by 800mm, but they left it overnight and it drained about 1.8m.

There were a series of emails on Friday afternoon which you were cced into.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Harris, KimM  
**Sent:** Monday, 18 February 2019 7:50 AM

**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>  
**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Morning Stuart,

I drove to the weir yesterday, the pond and wetlands areas on Isabella Drive (I think it is east, not good with directions) has been completely drained.

I don't know if this was in the plan or not, just letting you know.

Kim

Regards

*Kim Harris*

Kim Harris | Senior Project Officer | Civil Infrastructure & Capital Works Branch  
 Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email [KimM.Harris@act.gov.au](mailto:KimM.Harris@act.gov.au)  
 Infrastructure Finance and Capital Works | Chief Minister, Treasury and Economic Development Directorate | ACT Government  
 Level 2 Nature Conservation House, Cnr Benjamin Way and Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT  
 2601 | [www.act.gov.au](http://www.act.gov.au)

 Please consider the environment before printing this e-mail. **Be Green** - read on screen

---

**From:** Oxborrow, Stuart  
**Sent:** Friday, 15 February 2019 3:43 PM  
**To:** Smith, Jeremy <[Jeremy.Smith@act.gov.au](mailto:Jeremy.Smith@act.gov.au)>  
**Cc:** Wadwell, Emily <[Emily.Wadwell@act.gov.au](mailto:Emily.Wadwell@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Harris, KimM <[KimM.Harris@act.gov.au](mailto:KimM.Harris@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Subject:** FW: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Jeremy,

As discussed, Isabella Pond was meant to be lowered by TCCS Road Maintenance by approx. 800mm yesterday in accordance with agreement below (see highlight). The need to lower the pond by 800mm was reconfirmed verbally between GLA and TCCS RM yesterday morning when the valve was opened. Following the lowering by 800mm the pond would be allowed to fill up naturally by 400mm to the underside of the existing slot in the weir wall.

However, it appears the pond drained faster than TCCS anticipated and when the site was visited this morning the water level at the weir wall was approx. 1.0m lower than the nominated level. ie it was lowered by approx. 1.8m in total. Due to the sloping nature of the base of the pond much of the base is now exposed, particularly when viewed from Drakeford Drive.

As noted below, the complete lowering of the pond (for wall repairs) was not due to happen until mid-March. GLA have advised that their sub-contractor had actually asked to undertake the repairs next week, however as recently as this morning GLA had advised them that the work could not be undertaken until mid-March. GLA are currently trying to get in touch with their subbie to see if they can still do the work next week. This should be known this afternoon or Monday morning.

If GLA are able to do the work next week, the pond will need to be completely drained (it still has some water in it, particularly next to the weir wall), and Tuggeranong Pond (downstream of Isabella Weir) will need to be lowered by approx. 1.0m to allow the downstream face of Isabella Weir to be accessed.

As soon as I hear from GLA re their ability to do the work next week I will let you know.

Regards,

Stuart

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)

Capital Works, Transport Canberra and City Services Directorate | **ACT Government**

GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** Vu, Noreen

**Sent:** Wednesday, 6 February 2019 3:28 PM

**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>

**Cc:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; **Sch 2 2.2(a)(ii)**

**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Stuart

**Sch 2 2.2(a)(ii)** from Rural Services will be your best contact. **Sch 2 2.2(a)(ii)**

Please loop Greg Skaines and me into any email conversations so we are across it.

Many thanks, Noreen

**Noreen Vu**

Assistant Director, Environmental Services

**Phone 02 6205 0746 | M: 0434 780 039**

Roads Maintenance | **Roads ACT** | Transport Canberra and City Services Directorate | **ACT Government**

255 Canberra Avenue, Fyshwick | PO Box 777 Fyshwick ACT 2609

**From:** Oxborrow, Stuart

**Sent:** Wednesday, 6 February 2019 3:21 PM

**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>

**Cc:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>

**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Noreen,

Can you please provide the contact details of the maintenance crews that Guideline should be in touch with to arrange the pond lowering. Also, can you please advise the maintenance crews that Guideline will be getting in touch with them to lower the pond level, and that this is approved.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)

Capital Works, Transport Canberra and City Services Directorate | **ACT Government**

GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** Vu, Noreen

**Sent:** Monday, 4 February 2019 3:37 PM

**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>

**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Chester, Heath

<[Heath.Chester@act.gov.au](mailto:Heath.Chester@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>

**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Stuart,

I have no further issues on this. I have known other sites where we've tried to lower water levels to then be told later on there were fish releases. So it is always good to double check these things.

But if you feel confident the field officers listened to the instructions, then I think we are good to go.

Many thanks, Noreen

**Noreen Vu**

Assistant Director, Environmental Services

**Phone 02 6205 0746 | M: 0434 780 039**

Roads Maintenance | **Roads ACT** | Transport Canberra and City Services Directorate | **ACT Government**

255 Canberra Avenue, Fyshwick | PO Box 777 Fyshwick ACT 2609

---

**From:** Oxborrow, Stuart

**Sent:** Monday, 4 February 2019 3:34 PM

**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>

**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Chester, Heath <[Heath.Chester@act.gov.au](mailto:Heath.Chester@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>

**Subject:** FW: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Hi Noreen,

The lowering of Isabella Pond will not affect the water levels or fingerlings in Upper Stranger Pond.

Also, attached is confirmation from TCCS (Jeremy Smith) to EPSDD (Rebecca McLeod and Margaret Kitchen) that TCCS planned to lower Isabella Pond in February 2019 for maintenance so no restocking of fingerlings in Isabella Pond should be undertaken in January. As far as I am aware, no restocking of Isabella Pond took place following this correspondence.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**

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GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Chester, Heath

**Sent:** Monday, 4 February 2019 11:52 AM

**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>

**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>

**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

No issues

Regards

Heath Chester | Manager, Water Regulation

Phone: +61 2 62075728 | [heath.chester@act.gov.au](mailto:heath.chester@act.gov.au)



---

**From:** Vu, Noreen  
**Sent:** Monday, 4 February 2019 11:50 AM  
**To:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Chester, Heath <[Heath.Chester@act.gov.au](mailto:Heath.Chester@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Nick for your email,

In terms of levels, I'll just run it past the EPA to ensure there is no issues. **Heath**, as discussed can you please have a look at the email below.

**Nick**, I also just want to confirm that what is proposed won't have any impacts on any fish stocking in the area which I understand occurred over January in Upper Stranger Pond. I am unsure if EPSDD have stocked fish anywhere else, so can your project team just ensure that there are no other fishy surprises.

Once confirmed on the first two points, I am happy to have our contractor ([Sch 2 2.2\(a\)\(ii\)](#)) go out to assist you.

Thanking you.

Many thanks, Noreen

**Noreen Vu**

Assistant Director, Environmental Services

**Phone 02 6205 0746 | M: 0434 780 039**

Roads Maintenance | **Roads ACT** | Transport Canberra and City Services Directorate | **ACT Government**

255 Canberra Avenue, Fyshwick | PO Box 777 Fyshwick ACT 2609

---

**From:** Taylor, Nick  
**Sent:** Monday, 4 February 2019 9:19 AM  
**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>  
**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>  
**Subject:** Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Good Morning Noreen

My name is Nick Taylor (IFCW) and I'm the Project Officer for the Isabella Weir/Wetland Project, acting on behalf of my clients, Michael McGrath and Stuart Oxborrow from Land Release Infrastructure (TCCS). I would like to give notice of the intention to execute programmed works and maintenance works, to both the Wetlands and the Weir at Isabella Pond. Please see below provisional timelines and brief methodology for the works.

- From 14/02/19 for approximately nine months the water level will be lowered from its current level of 574.6 to 574.2 i.e. 400mm lower than the existing water level. Note that the water will have to be lowered temporary (i.e. for about one day) to 573.8 (an additional 400mm, i.e. 800mm below the current level) as a safety factor while the stop boards are being removed. Once the boards are removed the valve will be closed and the pond will fill back up to 574.2 (i.e. 400mm below existing) where it will remain for nine months. This

is to allow the wetlands to be weeded and the dead plants replaced and the wetlands placed onto and off consolidation.

- From mid-March for approximately three weeks Isabella pond to be completely drained to allow repairs to the weir wall. The exact timing and duration of the pond emptying will depend on the weather leading up to and during the repair work. This complete draining of the pond was always envisaged as part of the routine maintenance of the weir.

We would advise that Guideline (The Contractor executing the Works) will be in touch with your organisation, to have Tuggeranong Weir lowered a few days before the 14/02 to allow the downstream wall of Isabella Weir to be accessible, as well as to open the valve on Isabella Weir on 14/02. Guideline will again be in touch with the maintenance crews in mid-March to open the Isabella valve and fully drain the pond. Please could you advise any other Directorates if you feel it necessary to do so?

Note that we (i.e. IFCW, TCCS LRI) will advise our Comms team to undertake the appropriate community notifications. I look forward to working with and you our other stakeholders to facilitate this request so we are best able to conclude the works successfully.

Regards Nick

Nick Taylor | Senior Project Officer | Civil Infrastructure

Phone 02 6207 0118 | Mobile 0451 449 331 [Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)

Infrastructure Finance Capital Works Chief Minister, Treasury and Economic Development Directorate ACT Government

Level 2 Nature Conservation House, 186 Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** "Harris, KimM" <KimM.Harris@act.gov.au>  
**Sent:** 18/02/2019 7:49 AM  
**To:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Cc:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Morning Stuart,

I drove to the weir yesterday, the pond and wetlands areas on Isabella Drive (I think it is east, not good with directions) has been completely drained.

I don't know if this was in the plan or not, just letting you know.

Kim

Regards

*Kim Harris*

Kim Harris | Senior Project Officer | Civil Infrastructure & Capital Works Branch  
Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email KimM.Harris@act.gov.au  
Infrastructure Finance and Capital Works | Chief Minister, Treasury and Economic Development Directorate | ACT Government  
Level 2 Nature Conservation House, Cnr Benjamin Way and Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT  
2601 | [www.act.gov.au](http://www.act.gov.au)

 Please consider the environment before printing this e-mail. **Be Green** - read on screen

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**From:** Oxborrow, Stuart  
**Sent:** Friday, 15 February 2019 3:43 PM  
**To:** Smith, Jeremy <Jeremy.Smith@act.gov.au>  
**Cc:** Wadwell, Emily <Emily.Wadwell@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>; Harris, KimM <KimM.Harris@act.gov.au>; Taylor, Nick <Nick.Taylor@act.gov.au>  
**Subject:** FW: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Jeremy,

As discussed, Isabella Pond was meant to be lowered by TCCS Road Maintenance by approx. 800mm yesterday in accordance with agreement below (see highlight). The need to lower the pond by 800mm was reconfirmed verbally between GLA and TCCS RM yesterday morning when the valve was opened. Following the lowering by 800mm the pond would be allowed to fill up naturally by 400mm to the underside of the existing slot in the weir wall.

However, it appears the pond drained faster than TCCS anticipated and when the site was visited this morning the water level at the weir wall was approx. 1.0m lower than the nominated level. ie it was lowered by approx. 1.8m in total. Due to the sloping nature of the base of the pond much of the base is now exposed, particularly when viewed from Drakeford Drive.

As noted below, the complete lowering of the pond (for wall repairs) was not due to happen until mid-March. GLA have advised that their sub-contractor had actually asked to undertake the repairs next week, however as recently as this morning GLA had advised them that the work could not be undertaken until mid-March. GLA are currently trying to get in touch with their subbie to see if they can still do the work next week. This should be known this afternoon or Monday morning.



If GLA are able to do the work next week, the pond will need to be completely drained (it still has some water in it, particularly next to the weir wall), and Tuggeranong Pond (downstream of Isabella Weir) will need to be lowered by approx. 1.0m to allow the downstream face of Isabella Weir to be accessed.

As soon as I hear from GLA re their ability to do the work next week I will let you know.

Regards,

Stuart

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**

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---

**From:** Vu, Noreen

**Sent:** Wednesday, 6 February 2019 3:28 PM

**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>

**Cc:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; **Sch 2 2.2(a)(ii)**

**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Stuart

**Sch 2 2.2(a)(ii)** from Rural Services will be your best contact. **Sch 2 2.2(a)(ii)**

Please loop Greg Skaines and me into any email conversations so we are across it.

Many thanks, Noreen

**Noreen Vu**

Assistant Director, Environmental Services

**Phone 02 6205 0746 | M: 0434 780 039**

Roads Maintenance | **Roads ACT** | Transport Canberra and City Services Directorate | **ACT Government**

255 Canberra Avenue, Fyshwick | PO Box 777 Fyshwick ACT 2609

---

**From:** Oxborrow, Stuart

**Sent:** Wednesday, 6 February 2019 3:21 PM

**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>

**Cc:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>

**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Noreen,

Can you please provide the contact details of the maintenance crews that Guideline should be in touch with to arrange the pond lowering. Also, can you please advise the maintenance crews that Guideline will be getting in touch with them to lower the pond level, and that this is approved.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**

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GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Vu, Noreen

**Sent:** Monday, 4 February 2019 3:37 PM

**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>  
**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Chester, Heath <[Heath.Chester@act.gov.au](mailto:Heath.Chester@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Stuart,

I have no further issues on this. I have known other sites where we've tried to lower water levels to then be told later on there were fish releases. So it is always good to double check these things.

But if you feel confident the field officers listened to the instructions, then I think we are good to go.

Many thanks, Noreen

**Noreen Vu**

Assistant Director, Environmental Services

**Phone 02 6205 0746 | M: 0434 780 039**

Roads Maintenance | **Roads ACT** | Transport Canberra and City Services Directorate | **ACT Government**

255 Canberra Avenue, Fyshwick | PO Box 777 Fyshwick ACT 2609

---

**From:** Oxborrow, Stuart  
**Sent:** Monday, 4 February 2019 3:34 PM  
**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>  
**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Chester, Heath <[Heath.Chester@act.gov.au](mailto:Heath.Chester@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>  
**Subject:** FW: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Hi Noreen,

The lowering of Isabella Pond will not affect the water levels or fingerlings in Upper Stranger Pond.

Also, attached is confirmation from TCCS (Jeremy Smith) to EPSDD (Rebecca McLeod and Margaret Kitchen) that TCCS planned to lower Isabella Pond in February 2019 for maintenance so no restocking of fingerlings in Isabella Pond should be undertaken in January. As far as I am aware, no restocking of Isabella Pond took place following this correspondence.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**

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---

**From:** Chester, Heath  
**Sent:** Monday, 4 February 2019 11:52 AM  
**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

No issues

Regards

Heath Chester | Manager, Water Regulation  
 Phone: +61 2 62075728 | [heath.chester@act.gov.au](mailto:heath.chester@act.gov.au)  
 Office of the Environment Protection Authority | Access Canberra | ACT Government  
 | GPO Box 158 Canberra ACT 2601 | <http://www.act.gov.au/accesscbr>




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**From:** Vu, Noreen  
**Sent:** Monday, 4 February 2019 11:50 AM  
**To:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Skaines, Greg <[Greg.Skaines@act.gov.au](mailto:Greg.Skaines@act.gov.au)>; Chester, Heath <[Heath.Chester@act.gov.au](mailto:Heath.Chester@act.gov.au)>; Gilles, Jennie <[Jennie.Gilles@act.gov.au](mailto:Jennie.Gilles@act.gov.au)>  
**Subject:** RE: Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Thanks Nick for your email,  
 In terms of levels, I'll just run it pass the EPA to ensure there is no issues. **Heath**, as discussed can you please have a look at the email below.

**Nick**, I also just want to confirm that what is proposed won't have any impacts on any fish stocking in the area which I understand occurred over January in Upper Stranger Pond. I am unsure if EPSDD have stocked fish anywhere else, so can your project team just ensure that there are no other fishy surprises.

Once confirmed on the first two points, I am happy to have our contractor (Sch 2 2.2(a)(ii)) go out to assist you.

Thanking you.

Many thanks, Noreen

**Noreen Vu**  
 Assistant Director, Environmental Services  
**Phone 02 6205 0746 | M: 0434 780 039**  
 Roads Maintenance | **Roads ACT** | Transport Canberra and City Services Directorate | **ACT Government**  
 255 Canberra Avenue, Fyshwick | PO Box 777 Fyshwick ACT 2609

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**From:** Taylor, Nick  
**Sent:** Monday, 4 February 2019 9:19 AM  
**To:** Vu, Noreen <[Noreen.Vu@act.gov.au](mailto:Noreen.Vu@act.gov.au)>  
**Cc:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>  
**Subject:** Lowering of Isabella Pond for Planting and Maintenance Works [SEC=UNCLASSIFIED]

Good Morning Noreen

My name is Nick Taylor(IFCW) and I'm the Project Officer for the Isabella Weir/Wetland Project, acting on behalf of my clients , Michael McGrath and Stuart Oxborrow from Land Release Infrastructure (TCCS). I would like to give notice of the intention to execute programmed works and maintenance works, to both the Wetlands and the Weir at Isabella Pond. Please see below provisional timelines and brief methodology for the works.

- From 14/02/19 for approximately nine months the water level will be lowered from its current level of 574.6 to 574.2 i.e. 400mm lower than the existing water level. Note that the water will have to be lowered temporary (i.e. for about one day) to 573.8 (an additional 400mm, i.e. 800mm below the current level) as a

safety factor while the stop boards are being removed. Once the boards are removed the valve will be closed and the pond will fill back up to 574.2 (i.e. 400mm below existing) where it will remain for nine months. This is to allow the wetlands to be weeded and the dead plants replaced and the wetlands placed onto and off consolidation.

- From mid-March for approximately three weeks Isabella pond to be completely drained to allow repairs to the weir wall. The exact timing and duration of the pond emptying will depend on the weather leading up to and during the repair work. This complete draining of the pond was always envisaged as part of the routine maintenance of the weir.

We would advise that Guideline (The Contractor executing the Works) will be in touch with your organisation, to have Tuggeranong Weir lowered a few days before the 14/02 to allow the downstream wall of Isabella Weir to be accessible, as well as to open the valve on Isabella Weir on 14/02. Guideline will again be in touch with the maintenance crews in mid-March to open the Isabella valve and fully drain the pond. Please could you advise any other Directorates if you feel it necessary to do so?

Note that we (i.e. IFCW, TCCS LRI) will advise our Comms team to undertake the appropriate community notifications. I look forward to working with and you our other stakeholders to facilitate this request so we are best able to conclude the works successfully.

Regards Nick

Nick Taylor | Senior Project Officer | Civil Infrastructure

Phone 02 6207 0118 | Mobile 0451 449 331 [Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)

Infrastructure Finance Capital Works Chief Minister, Treasury and Economic Development Directorate ACT Government

Level 2 Nature Conservation House, 186 Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Sent:** 19/02/2019 4:37 PM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Subject:** FW: Defect Works at Isabella Weir, Weir Lowering [SEC=UNCLASSIFIED]

Nick,

For your info.

There still seems to be confusion whether Megapoxy H or HX is to be used. SMEC have said they want to use H, whereas GLA are saying only HX will be suitable due to the required viscosity.

Regards

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: stuart.oxborrow@act.gov.au**  
 Capital Works, Transport Canberra and City Services Directorate | ACT Government  
 GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** [Sch 2 2.2(a)(ii)]@pes.net.au  
**Sent:** Tuesday, 19 February 2019 4:15 PM  
**To:** [Sch 2 2.2(a)(ii)]@guidelineact.com.au; Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Cc:** Muthurajah, Thasan <Thasan.Muthurajah@act.gov.au>; [Sch 2 2.2(a)(ii)]@smec.com  
**Subject:** RE: Defect Works at Isabella Weir, Weir Lowering

Hi [Sch 2 2.2(a)(ii)]

As discussed in a meeting that Megapoxy H has water tolerant test certificates available however no evidence sighted for the Megapoxy HX. As you are aware of the corresponding level of the cracks on the downstream side are roughly below the wet silt level on the upstream side. Given the wet soil on the upstream side holds significant moisture, the chances are the water will present in a few cracks. The Megapoxy HX may be an option to use if Guideline ACT can confirm from the manufacturer that Megapoxy HX can be used against the wet and damp surface.

Would you please be able to provide a statement of assurance that Megapoxy HX is suitable for site specific application?

Regards

[Sch 2 2.2(a)(ii)]  
 Principal's Authorised Person (PAP)  
 Professional Engineering Service Pty Limited ACN 057 633 897  
 Mobile - [Sch 2 2.2(a)(ii)]




---

**From:** [Sch 2 2.2(a)(ii)]@guidelineact.com.au  
**Sent:** Tuesday, 19 February 2019 12:57 PM  
**To:** [Sch 2 2.2(a)(ii)]@pes.net.au; 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>

Cc: Gansel, Niklas <[Niklas.Gansel@act.gov.au](mailto:Niklas.Gansel@act.gov.au)>

Subject: Defect Works at Isabella Weir, Weir Lowering

Hi [redacted], Stuart,

The works are now planned for this Thursday to commence the defect repairs.

I will confirm with [redacted] to again open up the valves at the weir to drain the pond. The valve at the lower pond will also need to again be opened up to avoid flooding the downstream side of the weir. I have proposed that the valves be opened no later than today or tomorrow morning to ensure the site is accessible on Thursday AM.

I am sourcing a concrete reinforcement scanner currently and hope to have it onsite on Thursday to confirm the cover.

In regards to the Megapoxy H product. The materials are being provided by the local supplier CE. They have confirmed that for the injection method we require, the viscosity of Megapoxy H will not suit. Megapoxy Hx is to be used for our injection method. **Can you please confirm SMEC is agreeable for Megapoxy Hx to be used?**

Kind regards,

[redacted]

Sch 2 2.2(a)(ii) | **Project Manager**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [redacted]@[guidelineact.com.au](mailto:guidelineact.com.au)

M: [redacted]



**From:**"Hite, John" <John.Hite@act.gov.au>  
**Sent:**19/02/2019 3:58 PM  
**To:**"Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:**Isabella weir [SEC=UNCLASSIFIED]

Nick,

As discussed, last week (Wednesday from memory) I noticed that the downstream water level below the weir was down approx. 400-500mm (rocks were visible). The NWL is where the grass is on the banks. Just wondering about the effectiveness of the closure of the downstream valve at the Tuggeranong pond weir. This may not be visible now, based on the understanding of the Isabella pond being drained for defect works over the weekend, something to keep an eye on in the future.

Regards  
John Hite

Procurement Officer | Civil Infrastructure and Capital Works Branch

**Phone 02 6205 4719** | Fax 02 6207 5468 | Mobile 0478 100 473

Infrastructure Finance and Capital Works | Chief Minister, Treasury and Economic Development Directorate | **ACT Government**

Nature Conservation House, Cnr Benjamin Way and Emu Bank Belconnen | GPO Box 158 Canberra ACT 2601 2602 |

[www.act.gov.au](http://www.act.gov.au)

**From:** "Sch 2 2.2(a)(ii) [redacted]" <[redacted]@guidelineact.com.au>  
**Sent:** 20/02/2019 1:27 AM  
**To:** "Sch 2 2.2(a)(ii) [redacted]" <[redacted]@pes.net.au>  
**Cc:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Sch 2 2.2(a)(ii) [redacted]" <[redacted]@envirolinks.com.au>  
**Subject:** RE: Isabella wetlands replanting [SEC=UNCLASSIFIED]

Hi [redacted]

I have been assured that the irrigation system is to be installed by no later than 28<sup>th</sup> of this month.

The ground is currently saturated after being submerged for the last few months and is being dried out to allow for the weeding crews to move freely under the bird netting.

Watering of the plants is to continue by the contractor until the temporary irrigation is installed.

Kind regards,

[redacted]

**Sch 2 2.2(a)(ii) | Project Manager**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [redacted]@guidelineact.com.au

M: [redacted]




---

**From:** [redacted] <[redacted]@pes.net.au>  
**Sent:** Wednesday, 20 February 2019 11:31 AM  
**To:** [redacted]  
**Cc:** 'Oxborrow, Stuart'; 'Taylor, Nick'; [redacted]  
**Subject:** FW: Isabella wetlands replanting [SEC=UNCLASSIFIED]

Hi [redacted]

It was discussed during our site inspection that GLA will have irrigation system set up once the water levels are dropped. GLA advised us that Able Landscape will continually water probably daily once the water level is dropped until the plants are established. Then the water frequency will be as per 26 weeks maintenance schedule. Would you please provide your comments on irrigation during and after planting as discussed during our site inspection on 17 Dec 2018?

I will check your program with 26 weeks maintenance schedule.

Regards

[redacted]

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile - [redacted]





**From:** Kelly, Joel <Joel.Kelly@act.gov.au>  
**Sent:** Wednesday, 20 February 2019 11:23 AM  
**To:** Sch 2 2.2(a)(ii) @pes.net.au  
**Cc:** Sch 2 2.2(a)(ii) @envirolinks.com.au; Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>; Taylor, Nick <Nick.Taylor@act.gov.au>  
**Subject:** RE: Isabella wetlands replanting [SEC=UNCLASSIFIED]

Hi [Redacted]

Thanks for the update on the works to be undertaken at Isabella wetlands, however I don't see any information about irrigation systems installation or watering regimes. Can you please provide a plan for the proposed irrigation method and watering frequencies? The plan dates should coincide with the replanting dates, as previously identified irrigation of the water plants will be crucial to achieving handover in the timeframes you have identified in your plan.

I will be available on the 12<sup>th</sup> March.

Regards

Joel Kelly | Environmental Programs Coordinator  
 T 6205 5068 | Email: [joel.kelly@act.gov.au](mailto:joel.kelly@act.gov.au)  
 Place Management, City Presentation | Transport Canberra and City Services Directorate | ACT Government  
 490 Northbourne Ave, Dickson | GPO Box 158 Canberra ACT 2601  
[www.act.gov.au](http://www.act.gov.au) | [www.tccs.act.gov.au](http://www.tccs.act.gov.au) | @tccs\_act



**From:** Sch 2 2.2(a)(ii) @pes.net.au  
**Sent:** Wednesday, 20 February 2019 10:48 AM  
**To:** Kelly, Joel <Joel.Kelly@act.gov.au>  
**Cc:** Sch 2 2.2(a)(ii) @envirolinks.com.au; Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>; Taylor, Nick <Nick.Taylor@act.gov.au>  
**Subject:** RE: Isabella wetlands replanting [SEC=UNCLASSIFIED]

Hi Joel,

Following on from my email earlier, please see an attached revised program for defects repair and possible dates for consolidation inspections at Isabella Wetlands.

Given the large areas of both wetlands and as discussed during a site inspection on 17 Dec 2019 we requested that we will present the wetlands in two separate lots for the commencement of the consolidation. Would you please advise if you have any issue with two separable portions to commence 26 weeks maintenance period?

The contractor has started weed spraying this week, and they will commence hand removal of weeds and replanting from Monday, 25 Feb 2019. The crucial first date for inspection is Tuesday 12 March at the southern wetland. Please note that ELD and me are meeting along with IFCW on 5 March for pre-consolidation checks before meeting with you on 12 March. On top this, we will have regular site visits during re-planting. We will advise you if there are issues

or if we are not satisfied with the remedied works. Although would you please confirm your availability on 12 March?

Kind regards,

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile - Sch 2 2.2(a)(ii)



From: Sch 2 2.2(a)(ii) @pes.net.au

Sent: Monday, 18 February 2019 4:31 PM

To: 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>; 'Kelly, Joel' <Joel.Kelly@act.gov.au>

Cc: Sch 2 2.2(a)(ii) @pes.net.au; 'Taylor, Nick' <Nick.Taylor@act.gov.au>; 'McGrath, Michael' <Michael.McGrath@act.gov.au>; 'Harris, KimM' <KimM.Harris@act.gov.au>

Subject: RE: Isabella wetlands replanting [SEC=UNCLASSIFIED]

Hi Joel,

As you are aware that the planting of the wetlands was completed in June 2018. However, due to delay in Civil Operation Acceptance (OA) of the Wetlands, the wetland's soft-landscape submission request was not accepted by the TCCS in July 2018.

In December 2018 we received the Civil OA and it has been five months since the landscape works were completed. Due to lack of suitable weather, project challenges and some issues in maintenance by the Contractor, there have been more defects added to the site inspection summary by the PAP and the landscape consultant on 4 Dec 2018.

After the approval of Civil OA, the TCCS (Stuart Oxborrow and Michael McGrath) requested pre-consolidation inspection be carried out in late Dec 2018. The inspection was carried out with IFCW's Nick Taylor, Envirolink, Guideline ACT (GLA), Able Landscape, yourself and me. The defect summary list was prepared for the contractor to work on defects before the final consolidation inspection is organised.

As you mentioned the main issues identified were 1) weed control, 2) ongoing irrigation, 3) challenges due to water infiltration into northern ponds, and 4) issues with growth of plants due to few plants died and missing/drown plants, therefore need to increase the density of plants.

Since our site inspection, GLA has changed their program. It was suggested during our site visit on 17 Dec 2018 that replanting in February is not ideal. Therefore no replanting was carried in early February. The replanting and other landscape related re-works will now be commenced a month later date than the original program date 14 Jan 2019 advised at our site visit. The copy of the earlier program is attached. I am awaiting revise program from GLA. However, GLA advised that the new commencement date is now 14 Feb 2019 and if we use the old program then the rest of the duration to follow from 14 Feb 2019.

For your information, I have provided an abstract of our comments below to GLA regarding the program and certification. Please note that the contractor has considered our suggestions.

#### Notes on Program

- *Mid-January water level drops, and weeding means February planting. As Joel suggested, planting in February is not ideal. I understand GLA is planning to place an irrigation system. It was indicated that the irrigation system will be set up before the water levels are dropped and it was recommended watering to continue daily. So, it should hopefully have positive results.*

- It was recommended that the weeding should include a weed spray, followed by a hand removal team before re-planting beginning. Allow a few days for the spray weeds to show signs of dying of weeds.
- It was suggested that no planting should occur before February as January and even early February temperatures are too hot, and it will dry the wetlands and kill most plants.
- It was suggested that all works are to be completed prior to the PES/ELD inspection. i.e., densities, plant health, irrigation system and weed management will all be inspected prior certification.
- Paperwork for the consolidation may not be submitted immediately after the completion of planting. Paperwork will be sent once both PES and ELD agree that the site is fit for submission.

For your information, I have also attached our correspondence with GLA following on from our inspection and the defect summary list as well as the list of an indicative number of plants for replanting.

The contractor is now working towards rectifying those defects. It is anticipated that the contractor will remedy most of the defects by mid-March 2019. We advise that we will provide the final site inspection certificate upon completion of the deficiencies identified during our pre-consolidation inspection with the TCCS. [Sch 2 2.2(a)] from the ELD has been conducting site visits regularly, and he will provide an update as soon as the replanting is carried out to the satisfaction. Meanwhile, the TCCS requested the PAP to submit the consolidation documents except the final site inspection certificate to ensure all documents are accepted before landscape consolidation inspection is booked.

I have submitted the revised WAE documents requesting the soft landscape consolidation for the Isabella Wetlands project today. I have provided all WAE records and information as per the cover sheet for the landscape consolidation commencement. We hope that the WAE records be accepted for consolidation inspection from now until the issue of final landscape certificate by the PAP.

Please let me know if you have any queries.

Regards

[Sch 2 2.2(a)(ii)]

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile - [Sch 2 2.2(a)(ii)]



**From:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>

**Sent:** Thursday, 14 February 2019 8:24 AM

**To:** Kelly, Joel <Joel.Kelly@act.gov.au>

**Cc:** [Sch 2 2.2(a)(ii)] <[redacted]@pes.net.au>; McGrath, Michael <Michael.McGrath@act.gov.au>; Taylor, Nick <Nick.Taylor@act.gov.au>; Harris, KimM <KimM.Harris@act.gov.au>

**Subject:** RE: Isabella wetlands replanting [SEC=UNCLASSIFIED]

Hi Joel,

The Contractor is actually lowering the pond today by 400mm to allow weeding and plant replacement to commence. I'll let our site PAP Sarju Prajapati give you a detailed summary of the planned works over the next few weeks.

[Sch 2 2.2(a)(ii)]

Can you please ask Guideline for a detailed updated summary and program of landscaping works from now until the Wetland plants are placed onto Consolidation. Once you have received and reviewed this can you please advise Joel

and the rest of the IFCW/LRI team. We can all then review the strategy, comment if necessary and monitor the progress.

Regards,

Stuart

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**

**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)**

Capital Works, Transport Canberra and City Services Directorate | **ACT Government**

GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** Kelly, Joel

**Sent:** Wednesday, 13 February 2019 11:07 AM

**To:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>

**Subject:** Isabella wetlands replanting [SEC=UNCLASSIFIED]

Hi Stuart

Late last year I met with guideline and [REDACTED] to discuss the way forward to achieving soft landscape handover at Isabella Wetlands. I provided them with the issues that I would need to see addressed before I would consider issuing a soft landscape consolidation.

The main issues were

- weed control
- Replanting of dead or missing plants to design density.
- Ongoing irrigation, commencing immediately after replanting.

I suggested the replanting take place in Early March to enable the new plants some growing time before winter.

I have yet to hear anything back regarding any plans or proposed actions and March is almost here. Timing is crucial to achieving a positive outcome for the replanting.

Regards

Joel Kelly | Environmental Programs Coordinator

T 6205 5068 | Email: [joel.kelly@act.gov.au](mailto:joel.kelly@act.gov.au)

Place Management, City Presentation | Transport Canberra and City Services Directorate | **ACT Government**

490 Northbourne Ave, Dickson | GPO Box 158 Canberra ACT 2601

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 -----

**From:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Sent:** 20/02/2019 11:12 AM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "McGrath, Michael" <Michael.McGrath@act.gov.au>; "Crocker, Leigh" <Leigh.Crocker@act.gov.au>  
**Subject:** RE: Response to SMEC information request.docx [SEC=UNCLASSIFIED]

Nick,

As discussed, can you please ask **Sch 2 2.2(a)(ii)** whether a post construction drone survey was done of the pond invert before it was allowed to fill with water (ie after the surplus fill was placed in the pond invert).

If not, can you please ask GLA to submit a price to do a drone survey over the wetlands and drained pond invert. This can then be provided to Smec to input into their Consequence Assessment model.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502 | Mobile 0401 333 179 | Email: stuart.oxborrow@act.gov.au**  
Capital Works, Transport Canberra and City Services Directorate | **ACT Government**  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Crocker, Leigh  
**Sent:** Wednesday, 20 February 2019 9:46 AM  
**To:** Taylor, Nick <Nick.Taylor@act.gov.au>  
**Cc:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>  
**Subject:** Response to SMEC information request.docx [SEC=UNCLASSIFIED]

Hi Nick,

I put **Sch 2 2.2(a)(ii)** request for information into a table, and have attached it. Updated it just now as I did give him the memory stick yesterday with the information from the flood portal on it.

I think we need to work through this with him as there are a few things he can/should chase up, and a few that are unclear. Plus a couple we can do.

For your consideration, and maybe a meeting with Steve to go through it? Maybe check with Stuart first on the Isabella information they requested (the survey of the wetlands to work out the new capacity).

Regards

PS looking forward to hearing about your trip.

**From:** "Stellios, George" <George.Stellios@act.gov.au>  
**Sent:** 21/02/2019 11:06 PM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** RE: Wildlife concerns Isabella Pond [SEC=UNCLASSIFIED]

Thanks for keeping me in the loop. Sorry I had this opened and forgot to reply to you.

---

**From:** Taylor, Nick  
**Sent:** Tuesday, 19 February 2019 3:07 PM  
**To:** Holmes, Greg <Greg.Holmes@act.gov.au>  
**Cc:** McGrath, Michael <Michael.McGrath@act.gov.au>; Stellios, George <George.Stellios@act.gov.au>  
**Subject:** Wildlife concerns Isabella Pond [SEC=UNCLASSIFIED]

Afternoon Greg

Following your voicemail this morning below is some additional information which may be of use if you receive any further inquiries. I thank you for contacting IFCW and hope we have been of some assistance on this matter.

*During the course of construction the contractor and his staff monitored the site daily to ensure that possible risk to wildlife was minimised. As construction was finishing, we developed a Wildlife Management Plan that was to be implemented during the consolidation period for the plants. As part of this plan the netting protecting the plants was to be inspected on every visit to the site by the contractor and his landscape consultant, they would also free any animal caught in the netting, so long as there was no additional harm is done to the animal in the course of freeing the animal. The contractor's staff are to contact ACT Wildlife to assist if they cannot readily free the animal.*

*Recognising that animals could be caught in the netting between these visits, we erected the signs at 50m intervals so that members of the public could also seek assistance from the identified wildlife specialists. I have now contacted ACT Wildlife and they have confirmed that they are able to assist when called. I have arranged for them to be supplied with a key to the locks on the fencing so that they can freely access the pond area.*

*Regards Nick Taylor*

Nick Taylor | Senior Project Officer | Civil Infrastructure

**Phone 02 6207 0118** | Mobile 0451 449 331 [Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)

Infrastructure Finance Capital Works Chief Minister, Treasury and Economic Development Directorate ACT Government

Level 2 Nature Conservation House, 186 Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>  
**Sent:** 22/02/2019 11:57 AM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Cc:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Subject:** RE: Request to Increase PES PO [SEC=UNCLASSIFIED]

Nick,

As discussed, please increase the purchase order by \$50,000 to allow the current PES claim to be paid

I will review PES's variation claim next week and be in contact with any queries.

Regards,

**Stuart Oxborrow | Senior Engineer – Land Release Infrastructure**  
**Phone 02 6207 4502** | Mobile 0401 333 179 | Email: [stuart.oxborrow@act.gov.au](mailto:stuart.oxborrow@act.gov.au)  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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**From:** Taylor, Nick  
**Sent:** Thursday, 21 February 2019 3:36 PM  
**To:** Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>  
**Subject:** Request to Increase PES PO [SEC=UNCLASSIFIED]

Afternoon Boss

I've received an invoice from PES currently we have approx \$1500 in the current PO, the invoice amount is \$25,691, can we increase the PO to cover the invoice .

Regards Nick

Nick Taylor | Senior Project Officer | Civil Infrastructure  
**Phone 02 6207 0118** | Mobile 0451 449 331 [Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)  
Infrastructure Finance Capital Works Chief Minister, Treasury and Economic Development Directorate ACT Government  
Level 2 Nature Conservation House, 186 Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** 'Sch 2 2.2(a)(ii)' [redacted]@pes.net.au>  
**Sent:** 01/03/2019 11:08 AM  
**To:** "Sch 2 2.2(a)(ii)" [redacted]@guidelineact.com.au>  
**Cc:** "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "Sch 2 2.2(a)(ii)" [redacted]@pes.net.au>  
**Subject:** Isabella Wetlands

Hi [redacted]

Following on from my email advice below, I inspected the wetlands area this morning to see what progress is being made with weed removal.

As of this morning, there were only 4 labourers removing weed on the southern side of the wetlands. It would appear they may require a further 3 to 4 days to complete the weed removal from the southern side, including additional spraying as advised below from Envirolinks. I assume re-planting will take place immediately after all weeds are removed & the irrigation system becoming operational. Weed removal on the northern side has not commenced – this area has an extensive amount of large weed to be removed.

From my observation this morning there would appear to be several more weeks required to achieve weed removal and re-planting. I am concerned that the current rate of progress may not enable consolidation by the end of March.

Can you advise whether you plan on engaging more labourers to carry out the remaining landscaping works so that the works can be accelerated, inspected & placed on consolidation as soon as possible. Can you pls also provide an update on when these works will be completed.

Your earliest advice would be greatly appreciated.

Regards

Sch 2 2.2(a)(ii)

Director, Professional Engineering Service Pty Ltd  
 16 Black Swan Terrace, West Haven, NSW 2443  
 Phone [redacted]




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**From:** 'Sch 2 2.2(a)(ii)' [redacted]@pes.net.au]  
**Sent:** Tuesday, 26 February 2019 12:21 PM  
**To:** 'Sch 2 2.2(a)(ii)' [redacted]@guidelineact.com.au>  
**Cc:** 'Sch 2 2.2(a)(ii)' [redacted]@pes.net.au>  
**Subject:** FW: Isabella Pond Updates

Hi [redacted]

As discussed over the phone this morning, pls see advice from Envirolinks' site inspection yesterday regarding landscaping works for your information & assistance.

Regards

Sch 2 2.2(a)(ii)

Director, Professional Engineering Service Pty Ltd  
 16 Black Swan Terrace, West Haven, NSW 2443  
 Phone [redacted]





**From:** Sch 2 2.2(a)(ii) [redacted]@envirolinks.com.au  
**Sent:** Tuesday, 26 February 2019 11:05 AM  
**To:** Sch 2 2.2(a)(ii) [redacted]@pes.net.au>  
**Cc:** Sch 2 2.2(a)(ii) [redacted]@pes.net.au>  
**Subject:** Isabella Pond Updates

Hi [redacted]

I understand you are on leave but please find below my comments from my first inspection of Isabella Pond yesterday morning. These comments are general and where they apply to a specific location, it is noted.

- **Weeding:** Ensure that weed spraying is ongoing. While the weed spraying is effective, now that the water level has dropped weeds will become to re-shoot. These need to be continually sprayed. It was discussed on site during previous meetings that larger weeds would be removed by hand. This was occurring during yesterday's inspection. Reminder that Couch and Water Couch is not approved species and needs to be removed as a weed.
- **Irrigation systems:** Have not yet been installed on either the southern or northern wetlands. These need to be installed prior to re-plants. However it should've been installed already. We have a week of 30+ degree days and no rain. The current plants will potentially get damaged without any irrigation or rain. Refer to previous emails (20/2/2019) in regards to Joel Kelly's and ELDs comments regarding irrigation. It is preferred that this gets installed ASAP. The old irrigation system in the southern wetland also needs to be cleaned up. At the moment there is a large pile of hoses tangled in the netting on the eastern end.
- **Bird netting:** Ensure that the bird netting is regularly monitored for birds and damage. The netting around the sediment basin on the northern end needs to be completely removed. The wire and pickets were removed, but the netting is simply laying over the edge of the Roela walls. It is catching rubbish and other debris, as well as having the potential to catch birds and other animals. The area along the weir needs to be fixed or removed.
- **Re-planting.** Ensure that the irrigation system is installed prior to re-planting taking place. The bare areas within the wetland have become more apparent as the water level has dropped. However as the weeding continue more areas will arise. Monitor plant numbers as the replanting takes place to ensure that more plants are ordered if required.

I will revisit the site later in the week and provide another report then.

Kind regards,

Sch 2 2.2(a)(ii) [redacted] B.Arch (Hons) (S) [redacted]  
 Landscape Architect

5/61 Dundas Court PHILLIP ACT 2606 | [redacted]@envirolinks.com.au | www.envirolinks.com.au

**2018 AILA ACT Landscape Architecture Award for Cultural Heritage.**

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**From:** "Sch 2 2.2(a)(ii)" <[REDACTED]@smec.com>  
**Sent:** 08/03/2019 4:03 AM  
**To:** "Sch 2 2.2(a)(ii)" <[REDACTED]@pes.net.au>; "Sch 2 2.2(a)(ii)" <[REDACTED]@smec.com>  
**Cc:** "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Sch 2 2.2(a)(ii)" <[REDACTED]@pes.net.au>; "Sch 2 2.2(a)(ii)" <[REDACTED]@smec.com>  
**Subject:** RE: Upstream Wall Crack Inspection  
**Attachments:** S2-TamPur 150 V2UK-10[1].pdf, S6-TamPur 130 V1AU-10[1].pdf

Sch 2 2.2(a)(ii)

We would recommend that all cracks above 0.1 mm wide should be sealed from both upstream and downstream sides using the agreed methodology; including those recently identified, which I think are probably long term drying shrinkage cracks. These can occur after several weeks or months. I don't know whether the draining of the upstream face had anything to do with their appearance at this time.

I have sought advice on the leakage at the contraction joint between new and old concrete. This would seem to indicate a problem with the waterstop as that is intended to prevent water flowing through at this location. There are a couple of methods of dealing with this:

1. Use a two stage injection process with a hydrophobic polyurethane (TamPur 130) followed by a hydrophilic polyurethane (TamPur 150). This can be injected directly through the waterstop and you will probably need to inject 2 to 3 metres either side of the leak location.
2. Install a retrofitted surface mounted waterstop to the upstream face of the joint.

I hope that this will be of assistance in resolving this issue.

Regards,

Sch 2 2.2(a)(ii)

Senior Structural Engineer  
 SMEC (Member of the Surbana Jurong Group)

T

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**From:** "Sch 2 2.2(a)(ii)" <[REDACTED]@pes.net.au>  
**Sent:** Thursday, 7 March 2019 11:06 AM  
**To:** "Sch 2 2.2(a)(ii)" <[REDACTED]@smec.com>; "Sch 2 2.2(a)(ii)" <[REDACTED]@smec.com>  
**Cc:** Oxborrow, Stuart <stuart.oxborrow@act.gov.au>; 'Taylor, Nick' <Nick.Taylor@act.gov.au>; "Sch 2 2.2(a)(ii)" <[REDACTED]@pes.net.au>  
**Subject:** RE: Upstream Wall Crack Inspection

Hi Sch 2 2.2(a)(ii)

Can you please contact me to discuss following?

- The repairs of crack on downstream side carried out on Thursday, 20 Feb 2019.
- The sealing of the gap at water stop joint between new to existing wall on upstream side.
- New cracks identified on upstream side and downstream side on new southern labyrinth wall.

Regards

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)  
 Professional Engineering Service Pty Limited ACN 057 633 897  
 Mobile - Sch 2 2.2(a)(ii)



**From:** Sch 2 2.2(a)(ii) <[redacted]@smec.com>  
**Sent:** Monday, 25 February 2019 2:55 PM  
**To:** Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>; Sch 2 2.2(a)(ii) <[redacted]@smec.com>  
**Cc:** Oxborrow, Stuart <stuart.oxborrow@act.gov.au>; 'Taylor, Nick' <Nick.Taylor@act.gov.au>; Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>  
**Subject:** RE: Upstream Wall Crack Inspection

Sch 2 2.2(a)(ii)

Please find my comments below,

**Regards,**

Sch 2 2.2(a)(ii)  
 Senior Engineer - Structures  
 SMEC (Member of the Surbana Jurong Group)  
 T Sch 2 2.2(a)(ii)

**From:** Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>  
**Sent:** Monday, 25 February 2019 2:04 PM  
**To:** Sch 2 2.2(a)(ii) <[redacted]@smec.com>; Sch 2 2.2(a)(ii) <[redacted]@smec.com>  
**Cc:** Oxborrow, Stuart <stuart.oxborrow@act.gov.au>; 'Taylor, Nick' <Nick.Taylor@act.gov.au>; Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>  
**Subject:** Upstream Wall Crack Inspection

Hi Sch 2 2.2(a)(ii),

Following on from our inspection on upstream side on Friday 21 Feb 2019, can you please provide your comments and advise if any further rectification requires.

Below are my comments:

- Water stop joint – Since the crack repairs did not work on downstream side at the joints between two walls, you suggested option to seal the joint (V-groove) on the upstream side with water tolerant and water tight sealant. Please advise us whether SMEC require this to happen to close out this matter. – **please note I agreed to refer this matter to concrete expert in Melbourne. I Presume, he will response on tomorrow.**
- Wall 1 from southern abutment wall – two cracks identified on upstream side. Please see attached photos. The cracks are 0.3mm wide measured on crack gauge. You suggested you will discuss this internally within your people from Melbourne and you are going to advise us whether or not repairs require by Tuesday. Can you please advise us by tomorrow?- As discussed on site, according to the specification all the cracks which are more that 0.1mm require to seal. The two cracks which were identified on site were more than 0.2 in average and pattern is significantly follow the downstream crack. We presume those were full depth cracks and which require to seal both upstream and downstream.
- The corresponding crack of repaired crack on the downstream face – You suggested there is no repairs require because the cracks on upstream face are too small. Measured 0.1 mm. - Agreed
- No other major cracks identified on other section walls. – There is a limited visibility due to silt cover of the concrete face and we have done our best.
- Please advise whether you have any comments on the repairs of crack on downstream side carried out on Thursday, 20 Feb 2019.

Thanks

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)  
Professional Engineering Service Pty Limited ACN 057 633 897  
Mobile -Sch 2 2.2(a)(ii)



▶ Description



TamPur 150 is a single-component hydrophilic polyurethane in combination with polyether polyols. It only reacts when it comes in contact with water and forms a flexible polyurethane seal.

▶ Key Benefits

- Potable water certified
- High tensile adhesion
- Solvent-free, environmentally safe.
- Excellent adhesion to most surfaces including concrete, brick and mortar.
- Resistant to most organic solvents, mild acids and alkalis.
- Rapidly forms a highly resilient flexible seal that allows movement to the crack, fracture or joint.
- Reacts even with seawater or mineral water

▶ Typical Applications

TamPur 150 is a hydrophilic polyurethane prepolymer liquid for hydrophilic polymer resin type water stopping.

It can be injected directly into a leaking crack, fracture or joint, or it can be injected 1:1 with water.

After injection has taken place, the TamPur 150 will foam to expand and fill the void, forming a tight, impermeable elastomeric seal, stopping the water flow.

▶ Technical Data

| TamPur 150   |                       |
|--|-----------------------|
| Appearance   | Opaque liquid         |
| Viscosity at 25°C<br>Brookfield DV 11 spindle no. 2<br>at 60 rpm | 450 - 600cps          |
| Density at 25°C  | 1.1                   |
| Elongation thick section   | > 34%                 |
| Elongation thin section  | > 400%                |
| Adhesion Testing   | 3.84N/mm <sup>2</sup> |

| Ratio <sup>+</sup> | Cream Time | Rise Time | Foaming Ratio |
|--------------------|------------|-----------|---------------|
| 1:1                | 50 sec     | 98 sec    | 5X            |
| 1:2                | 42 sec     | 90 sec    | 5X            |
| 1:3                | 38 sec     | 110 sec   | 6X            |
| 1:4                | 30 sec     | 120 sec   | 7X            |

Ratio between Water:Resin at 25°C

| Temp | Cream Time | Rise Time | Foaming Ratio |
|------|------------|-----------|---------------|
| 10°C | 80         | 180       | 4             |
| 20°C | 55         | 130       | 4             |
| 25°C | 50         | 98        | 5             |
| 30°C | 42         | 90        | 6             |

Ratio 1:1 Water:Resin

All technical data stated herein is based on tests carried out under laboratory conditions.

# TamPur 150

Hydrophilic Flexible Polyurethane Grout

## ▶ Application Guidelines

TamPur 150 can be injected by two methods:

1. Single Component Pump that is equipped for high pressure. The resin will react with the water in the structure and foam.
2. Twin Piston Pump water / resin ratio can be varied to form different density foams as tabled shown beside.

Note: It is recommended that the material be conditioned to appropriate temperatures for at least 12 hours prior to application. Always make sure that the material is homogenous, mix the resin using a dry clean drill and paddle mixer for a minimum of 15 sec before application.

At temperatures below 10°C crystallization may occur. However after heating (indirect heat) and mixing, the liquid is restored to its original quality.

## ▶ Storage

TamPur 150 should be stored at room temperature (min 10°C and max 38°C), kept dry and out of direct sunlight. If these conditions are maintained and the product packaging is unopened, then a shelf life of 1 year can be expected.

## ▶ Health & Safety

TamPur 150 should only be used as directed. We always recommend that the Health & Safety data sheet is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Health & Safety data sheet is available upon request from your local TAM International representative.

[www.taminternational.com](http://www.taminternational.com)

# TamPur 130

Semi-Flexible Polyurethane Grout

► Tunnelling & Mining

Page 1 of 2

## ► Description



TamPur 130 / TamKat 130 is a single-shot hydrophobic polyurethane based on MDI in combination with polyether polyols and an amine based catalyst. The system only reacts when it comes into contact with water, producing a semi-flexible polyurethane foam.

## ► Key Benefits

- Potable water certified
- Can withstand high hydrostatic pressures
- Variable reaction times
- Semi-flexible
- Reacts with saline and mineral water
- Medium viscosity
- Solvent free, environmentally safe.

## ► Typical Applications

- Sealing against water ingress
- Sealing against leaking cracks and joints
- Sealing against water in masonry and brickwork
- Void filling
- Back grouting

## ► Technical Data

| TamPur 130   |              |
|--|--------------|
| Appearance   | Brown liquid |
| Viscosity at 25°C<br>Brookfield DV 11 spindle no. 2<br>at 60 rpm | 350 - 450cps |
| Flash point  | > 180°C      |
| Density at 25°C  | 1.16         |
| TamKat 130   |              |
| Appearance   | Clear liquid |
| Viscosity at 25°C<br>Brookfield DV 11 spindle no. 2<br>at 60 rpm | 30 - 40cps   |
| Flash point  | > 130°C      |
| Density at 25°C  | 0.97         |

Testing TamPur 130 – All tests carried out using the following mix ratio.

TamPur 130: 100 parts by weight

TamKat 130: As a percentage of TamPur 130 by weight, as stated in the results.

Water: In all tests, 10 parts by weight.

| Cream Time    |             |           |          |          |
|---------------|-------------|-----------|----------|----------|
| TamKat        | 1%          | 2%        | 5%       | 10%      |
| 15°C          | 33sec       | 33sec     | 30sec    | 26sec    |
| 25°C          | 30sec       | 30sec     | 26sec    | 24sec    |
| Gel Time      |             |           |          |          |
| TamKat        | 1%          | 2%        | 5%       | 10%      |
| 15°C          | 12min;50sec | 11m;5sec  | 6m;20sec | 3m;10sec |
| 25°C          | 12m;10sec   | 10m;10sec | 4m;30sec | 3m       |
| Foaming Ratio |             |           |          |          |
| TamKat        | 1%          | 2%        | 5%       | 10%      |
| 15°C          | > 4X        | > 9X      | > 14X    | > 20X    |
| 25°C          | > 6X        | > 15X     | > 20X    | > 30X    |

All technical data stated herein is based on tests carried out under laboratory conditions.

[www.taminternational.com](http://www.taminternational.com)

# TamPur 130

Semi-Flexible Polyurethane Grout

▶ Tunnelling & Mining

Page 2 of 2

## ▶ Application Guidelines

TamPur 130 / TamKat 130 is a complete system for void filling and leak sealing in concrete or masonry structures and sandy soils.

Adaptable reaction time is possible by varying the catalyst ratio from between 2% to 10%.

Reaction with water results in the formation of a semi-flexible polyurethane foam which is hydrophobic and chemically resistant. The reaction time can be set from 3 to 14 minutes. (See table of reaction times overleaf.) The pre-mixed resin can be pumped by means of a single component injection pump that is equipped for high pressure. Following the injection, the pump must be thoroughly cleaned with TamPur Cleaner.

Note: Always make sure that the material is homogeneous, mix the resin using a dry clean drill and paddle mixer for a minimum of 15 sec before application.

It is recommended that the material be conditioned to appropriate temperatures for at least 12 hours prior to application.

**Important:** Keep containers sealed whilst not being used. Moisture may be absorbed into the TamPur from the atmosphere causing it to react. Careful consideration should be given to applications below 10°C on a falling thermometer to avoid possible crystallization.

## ▶ Storage

TamPur 130 should be stored at room temperature (min 10°C and max 35°C), kept dry and out of direct sunlight. If these conditions are maintained and the product packaging is unopened, then a shelf life of 1 year can be expected.

## ▶ Health & Safety

TamPur 130 should only be used as directed. We always recommend that the Health & Safety data sheet is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Health & Safety data sheet is available upon request from your local TAM International representative.

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**From:** "Sch 2 2.2(a)(ii) [redacted]@guidelineact.com.au"  
**Sent:** 12/03/2019 2:29 AM  
**To:** "Sch 2 2.2(a)(ii) [redacted]@pes.net.au"  
**Cc:** "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "Sch 2 2.2(a)(ii) [redacted]@pes.net.au"; "Sch 2 2.2(a)(ii) [redacted]@envirolinks.com.au"  
**Subject:** RE: Isabella Wetlands

Hi [redacted],

Thanks for the notes regarding Isabella Wetlands. I will be onsite this afternoon to review the site and Able's progress.

Kind regards,

[redacted]

---

**From:** "Sch 2 2.2(a)(ii) [redacted]@pes.net.au"  
**Sent:** Tuesday, 12 March 2019 12:10 PM  
**To:** "Sch 2 2.2(a)(ii) [redacted]@pes.net.au"  
**Cc:** 'Taylor, Nick'; 'Oxborrow, Stuart'; "Sch 2 2.2(a)(ii) [redacted]@pes.net.au"  
**Subject:** RE: Isabella Wetlands

Hi [redacted],

I was out at Isabella Wetlands this morning and saw only three labourers working, one at Southern Wetland and two at Northern Wetland. I believe it was early morning and hoping Able Landscape will increase the numbers during the day.

A quick reminder that in Southern Wetland there are few bare areas where your contractor is still required re-planting to improve density.

As per your schedule, Able Landscape would have already completed the weed removal from Northern Wetland. I am now concerned that I can still see a lot of weeds outstanding to remove from Northern Wetland and the progress is very slow noting the replanting yet to commence. Can you please advise whether GLA has planned to put more resources?

Also, I saw the person working in the wetland without safety shoes/wager boots and the condition of the gloves were not good during hand pulling of weeds. Upon requesting to view their pre-start, he said that he has not seen. I have asked for supervisor but he was not present so I could not talk to them directly about it. Therefore, I called you earlier and left the voice message regarding this. Would you please reinforce with Able Landscape that all personnel are aware of risks and have understood their SWMS and keep records of pre-start.

Regards

Sch 2 2.2(a)(ii) [redacted]

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile - Sch 2 2.2(a)(ii) [redacted]



**From:** Sch 2 2.2(a)(ii) @pes.net.au  
**Sent:** Friday, 8 March 2019 11:47 AM  
**To:** Sch 2 2.2(a)(ii) @guidelineact.com.au  
**Cc:** 'Taylor, Nick' <Nick.Taylor@act.gov.au>; 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>; Sch 2 2.2(a)(ii) @pes.net.au>; Sch 2 2.2(a)(ii) @envirolinks.com.au  
**Subject:** RE: Isabella Wetlands

Sch 2 2.2(a)(ii)

Following to my inspection with Sch 2 2.2(a)(ii) yesterday afternoon my comments are below.

- Very minimum or none re-planting carried out yesterday. No labourers were working at Southern Wetland in the morning.
- During my inspection, I did not see anyone worked on Southern Wetland except one person come to turn on the sprinklers in the afternoon. We have only witnessed 3 labourers working on Northern Wetland areas (for hand pulling of weeds).
- There are many isolated bare areas where GLA can improve the density of plants. There are clearly visible areas where re-planting yet to be carried out. After talking to an available site crew member, re-planting would not recommence until after the long weekend. Can you please advise what Able's program is?
- The highland areas have more visible bare patches; it may need more work before re-planting due to hard top soil. Attached photos are for your reference.
- As you are aware that shrubs and plants shall be well established and expected to see healthy top growth. (but not expected fully grown.) The small amount of plants root system may not have well established. Some plants cannot be seen as they are planted deep. While plants are not expected to have shown extensive growth but we do need to see evidence that they are beginning to grow and establish. It is hard to confirm whether the plants will grow and thrive in those patches. I have attached photos for your reference. The state of the plants as they were observed will not be acceptable.
- Regarding irrigation of new planting – I remind that *"all plants shall be watered in immediately after planting to ensure thorough wetting of the root ball and settling of disturbed soil. Plants shall be watered at such times during the Contract period as required to maintain growth free of water stress"*. It is up to GLA how you would manage watering straight after planting. As Joel and Sch 2 2.2(a)(ii) pointed out to us how imperative the continual watering and the reasons for failing plants during early growth without water. We have seen peninsulas are little dry and the areas have hard topsoil. It appears that water is not reaching out to the plants along the wall. It also seems that no re-planting carried out in peninsulas.
- The current watering may not be enough, it in its currents state GLA can consider one person allocated to watering throughout the day to ensure that the irrigation is on and being moved to ensure full wetland coverage. However there isn't enough evidence this is occurring to boost the plants growth in its early age.
- Weeds- Weeds piles are to be removed from site. We cannot have large piles of removed weeds left in piles on site.

From my observation over the last few days, it appears that the southern wetland has achieved some degree of progress, but it does not warrant for Joel to inspect the site and ELD to provide a certificate of the establishment. I am concerned that the current pace may not enable consolidation. It will require a few more days to achieve completion of re-planting and initial germination/establishment of the root system.

Based on the above I am now postponing the scheduled inspection until Tuesday 18 March 2019.

We have also not seen the frequency of watering plants during consolidation. Please provide an irrigation plan during consolidation as a matter of urgency.

Following comment from ELD from their experience that GLA can consider regarding controlling the water level in both wetlands:

Controlling the water levels of the wetland is important, while plants foliage should not be under water and their root systems are able to be submerged. By releasing water after big events, you are able to drop the water to a level where the entire lower marsh zones surface area can be under 1-5mm of water, allowing for foliage to be above the water level. Water can then be completely released for maintenance including weeding/spraying/replanting.

Monitor incoming rain events to ensure that the outlet is then shut to catch the water. Inundation for 1-2 days should not kill any plants. As stated we can lower the water level, but raising it is difficult without water in Isabella Pond or rain events. Holding water in the wetlands also allows for easy access to water for the irrigation systems to water the peninsulas.

Regards

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile - Sch 2 2.2(a)(ii)



**From:** Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>

**Sent:** Wednesday, 6 March 2019 4:55 PM

**To:** Sch 2 2.2(a)(ii) <[redacted]@guidelineact.com.au>

**Cc:** 'Taylor, Nick' <Nick.Taylor@act.gov.au>; 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>; Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>; Sch 2 2.2(a)(ii) <[redacted]@envirolinks.com.au>

**Subject:** RE: Isabella Wetlands

Hi Sch 2 2.2(a)(ii)

My comments for the southern wetlands from today's inspection is as follow.

- I witnessed 6 labourers working on the southern wetland. Most of them were busy with replanting.
- The plant density must be monitored especially on highlands area and few bare patches.
- Two irrigation pumps and two sprinklers were working. I advise that GLA to improve the irrigation system and the pumps must be working almost every day until new plants are established and regular watering will require during the consolidation period.
- Lots of weeds have been stacked along the fence line of southern wetland. The piles of weeds have to be taken off site and dispose of.
- The re-planting is still slow. Able will continue re-planting on southern wetland until Friday and Saturday this week.
- Concerns over the planting that the re-planting will only be completed on Friday and the inspection with Joel is booked on Tuesday, 12 March 2019.
- Please note that it will be difficult to provide certification of the establishment until plants are established. It usually takes a few weeks. Therefore, we do not recommend the consolidation inspection be requested straight after completion of replanting. New plants are expected to thrive before the consolidation inspection. In this instance the chances are Joel will not accept the wetlands.
- GLA has started hand removal of weeds from the northern wetland. We note that it is expected to complete by 8 March 2019.
- Again concerns are Able has sprinklers working on southern wetland but no irrigation in place on the northern wetland. As advised earlier it is imperative to have an irrigation system in place in a north wetland which is a great concern at the moment.
- The north wetland is running behind the program.

Sch 2 2.2(a)(ii) had another meeting at 11am today and it was raining while Sch 2 2.2(a)(ii) was onsite at 10am. So he did not have a chance to visit the wetlands. However, Sch 2 2.2(a)(ii) will come back tomorrow mid-day to inspect both the wetlands. It would be good if you are available around mid-day to discuss the concerns over the northern wetlands.

Regards

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile -Sch 2 2.2(a)(ii)

**From:** Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>**Sent:** Tuesday, 5 March 2019 12:12 PM**To:** Sch 2 2.2(a)(ii) <[redacted]@guidelineact.com.au>**Cc:** 'Taylor, Nick' <Nick.Taylor@act.gov.au>; 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>; Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>**Subject:** RE: Isabella Wetlands

Hi [redacted]

Following to our phone discussion this morning I visited the southern and northern wetlands. Following are my comments

#### Southern Wetlands

- Weed removals - A good progress has been achieved. It appears that hand pulling of weeds are under control now.
- Re-planting – Since the water is dropped the bare patches are more visible. Please be mindful of number of re-planting requires to meet the plants density in bare areas. Abel's crew started replanting from eastern end. My opinion is that the re-planting will not be completed until Monday or Tuesday next week.
- Irrigation – I have only observed two sprinklers on which are not enough to cover all the areas of the southern wetlands. I noticed dry and hard areas of high peninsula of the wetland that need more attention. The existing plants will be dead if the plants on high areas won't get enough water regularly. Can you please advise whether you plan to place more irrigation pumps to water all areas of the southern wetlands.
- Since you are draining the water from the wetlands there are chances that the wetlands will be completely dried out and, all existing and new plants will be under water stress. Please monitor the water level and place correct irrigation system in the wetland. If necessary you may need to source water from the ponds to avoid draining the wetland.

#### Northern Wetlands

- No works carried out other than weed spraying. Can you please advise your plan to commence the works on a northern wetland?
- Since the water level of the northern wetland already too low, I am very concern about the health of the existing plants. We have no rain since last week, plus the temp is very high and no irrigation system in place. These are recipes for the damage to the wetlands. Can you please advise what measures Guideline will have in place to protect the plants?
- Can you please provide an update on when the works on northern wetland will be completed?

#### Grassing:

Also please note that the WAE package for grassing of the Weir and the wetland is the separate submission which we are awaiting from GLA. Can you please advise update on the progress of the Grassing area and WAE drawings?

As requested in my email on 20 Feb 2019, can you please advise the frequency of the watering the plants during 26 Weeks Maintenance Plan?

Sch 2 2.2(a) has conducted the inspection this morning. I will advise you his further comments if any once I received an inspection notes from Sch 2 2.2(a)

Regards

Sch 2 2.2(a)(ii)

Principal's Authorised Person (PAP)

Professional Engineering Service Pty Limited ACN 057 633 897

Mobile - Sch 2 2.2(a)(ii)




---

**From:** Sch 2 2.2(a)(ii) <Sch 2 2.2(a)(ii)@guidelineact.com.au>

**Sent:** Monday, 4 March 2019 11:42 AM

**To:** Sch 2 2.2(a)(ii) <Sch 2 2.2(a)(ii)@pes.net.au>

**Cc:** 'Taylor, Nick' <Nick.Taylor@act.gov.au>; 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>;

Sch 2 2.2(a)(ii) <Sch 2 2.2(a)(ii)@pes.net.au>

**Subject:** RE: Isabella Wetlands

Hi Sch 2 2.2(a)(ii),

Today there is a supervisor and 7 labour onsite conducting weeding, planting and setting up of the irrigation for the new plants.

I will be onsite on Wednesday at 10am, yourself and/or Sch 2 2.2(a) are welcome to accompany me to review the site's progress since hand pulling weeding commenced on Monday 25<sup>th</sup> February.

Kind regards,

Sch 2 2.2(a)(ii)

Sch 2 2.2(a)(ii) | **Project Manager**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: Sch 2 2.2(a)(ii) <Sch 2 2.2(a)(ii)@guidelineact.com.au>

M: Sch 2 2.2(a)(ii)




---

**From:** Sch 2 2.2(a)(ii) <Sch 2 2.2(a)(ii)@pes.net.au>

**Sent:** Friday, 1 March 2019 11:09 AM

**To:** Sch 2 2.2(a)(ii) r

**Cc:** 'Taylor, Nick'; 'Oxborrow, Stuart'; Sch 2 2.2(a)(ii) <Sch 2 2.2(a)(ii)@pes.net.au>

**Subject:** Isabella Wetlands

Hi Sch 2 2.2(a)

Following on from my email advice below, I inspected the wetlands area this morning to see what progress is being made with weed removal.

As of this morning, there were only 4 labourers removing weed on the southern side of the wetlands. It would appear they may require a further 3 to 4 days to complete the weed removal from the southern side, including

additional spraying as advised below from Envirolinks. I assume re-planting will take place immediately after all weeds are removed & the irrigation system becoming operational. Weed removal on the northern side has not commenced – this area has an extensive amount of large weed to be removed.

From my observation this morning there would appear to be several more weeks required to achieve weed removal and re-planting. I am concerned that the current rate of progress may not enable consolidation by the end of March.

Can you advise whether you plan on engaging more labourers to carry out the remaining landscaping works so that the works can be accelerated, inspected & placed on consolidation as soon as possible. Can you pls also provide an update on when these works will be completed.

Your earliest advice would be greatly appreciated.

Regards

Sch 2 2.2(a)(ii)

Director, Professional Engineering Service Pty Ltd

16 Black Swan Terrace, West Haven, NSW 2443

Phone Sch 2 2.2(a)(ii)




---

**From:** Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>  
**Sent:** Tuesday, 26 February 2019 12:21 PM  
**To:** Sch 2 2.2(a)(ii) <[redacted]@guidelineact.com.au>  
**Cc:** Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>  
**Subject:** FW: Isabella Pond Updates

Hi Sch 2 2.2(a)

As discussed over the phone this morning, pls see advice from Envirolinks' site inspection yesterday regarding landscaping works for your information & assistance.

Regards

Sch 2 2.2(a)(ii)

Director, Professional Engineering Service Pty Ltd

16 Black Swan Terrace, West Haven, NSW 2443

Phone Sch 2 2.2(a)(ii)




---

**From:** Sch 2 2.2(a)(ii) <[redacted]@envirolinks.com.au>  
**Sent:** Tuesday, 26 February 2019 11:05 AM  
**To:** Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>  
**Cc:** Sch 2 2.2(a)(ii) <[redacted]@pes.net.au>  
**Subject:** Isabella Pond Updates

Hi 

I understand you are on leave but please find below my comments from my first inspection of Isabella Pond yesterday morning. These comments are general and where they apply to a specific location, it is noted.

- Weeding: Ensure that weed spraying is ongoing. While the weed spraying is effective, now that the water level has dropped weeds will become to re-shoot. These need to be continually sprayed. It was discussed on site during previous meetings that larger weeds would be removed by hand. This was occurring during yesterday's inspection. Reminder that Couch and Water Couch is not approved species and needs to be removed as a weed.
- Irrigation systems: Have not yet been installed on either the southern or northern wetlands. These need to be installed prior to re-plants. However it should've been installed already. We have a week of 30+ degree days and no rain. The current plants will potentially get damaged without any irrigation or rain. Refer to previous emails (20/2/2019) in regards to Joel Kelly's and ELDs comments regarding irrigation. It is preferred that this gets installed ASAP. The old irrigation system in the southern wetland also needs to be cleaned up. At the moment there is a large pile of hoses tangled in the netting on the eastern end.
- Bird netting: Ensure that the bird netting is regularly monitored for birds and damage. The netting around the sediment basin on the northern end needs to be completely removed. The wire and pickets were removed, but the netting is simply laying over the edge of the Rocla walls. It is catching rubbish and other debris, as well as having the potential to catch birds and other animals. The area along the weir needs to be fixed or removed.
- Re-planting. Ensure that the irrigation system is installed prior to re-planting taking place. The bare areas within the wetland have become more apparent as the water level has dropped. However as the weeding continue more areas will arise. Monitor plant numbers as the replanting takes place to ensure that more plants are ordered if required.

I will revisit the site later in the week and provide another report then.

Kind regards,

Sch 2 2.2(a)(ii)

Urban Development

Landscape Architecture

5/61 Dundas Court PHILLIP ACT 2606

Sch 2 2.2(a)(ii)

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**From:** "Harris, KimM" <KimM.Harris@act.gov.au>  
**Sent:** 20/03/2019 3:13 PM  
**To:** "Ogden, Ralph" <Ralph.Ogden@act.gov.au>  
**Cc:** "Toomey, Richard" <Richard.Toomey@act.gov.au>; "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** RE: news on Isabella wetlands [DLM=For-Official-Use-Only]

Hi Ralph,

Apologies for taking so long with this I have been swamped this week.

#### **Isabella Weir and Wetlands Current status;**

Minor repairs and maintenance have been undertaken over the last month.  
Ongoing monitoring will be carried out.

The weir is substantially complete.

#### **Risk and Consequence Assessment:**

The risk and consequence assessment is ongoing, and is on program.

#### **Wetlands Consolidation:**

A meeting to inspect the Southern wetlands was undertaken on Monday 18 March.

All relevant stakeholders will undertake another inspection week of 26<sup>th</sup> March, it is anticipated the southern wetlands will commence the 26 week consolidation period by the end of March.

The Northern wetlands were also inspected and it is anticipated consolidation will commence in April, weather dependent.

#### **Regulatory Plan:**

Regulatory Plan is being worked on with an anticipated completion April / May dependent on the regulators commentary.

I have also provided sequence and staging photos to Richard.

Please do not hesitate to contact me if I can be of further assistance.

Regards

*Kim Harris*

Kim Harris | Senior Project Officer | Civil Infrastructure & Capital Works Branch  
Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email KimM.Harris@act.gov.au  
Infrastructure Finance and Capital Works | Chief Minister, Treasury and Economic Development Directorate | ACT Government  
Level 2 Nature Conservation House, Cnr Benjamin Way and Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT  
2601 | [www.act.gov.au](http://www.act.gov.au)

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---

**From:** Ogden, Ralph  
**Sent:** Monday, 18 March 2019 10:03 AM  
**To:** Harris, KimM <KimM.Harris@act.gov.au>  
**Subject:** RE: news on Isabella wetlands [DLM=For-Official-Use-Only]



Great, thanks!

Ralph Ogden | Program Manager, Healthy Waterways Project  
 Catchment Management and Water Policy | Environment, Planning and Sustainable Development Directorate  
 ☎ 02 6207 2207 | ✉ [Ralph.Ogden@act.gov.au](mailto:Ralph.Ogden@act.gov.au)

---

**From:** Harris, KimM  
**Sent:** Monday, 18 March 2019 9:44 AM  
**To:** Ogden, Ralph <[Ralph.Ogden@act.gov.au](mailto:Ralph.Ogden@act.gov.au)>  
**Cc:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Crisp, Sarah <[Sarah.Crisp@act.gov.au](mailto:Sarah.Crisp@act.gov.au)>; Mangeruca, Maria <[Maria.Mangeruca@act.gov.au](mailto:Maria.Mangeruca@act.gov.au)>; Toomey, Richard <[Richard.Toomey@act.gov.au](mailto:Richard.Toomey@act.gov.au)>  
**Subject:** RE: news on Isabella wetlands [DLM=For-Official-Use-Only]

Good morning Ralph,

I will have something to you before Thursday.

Regards

*Kim Harris*

Kim Harris | Senior Project Officer | Civil Infrastructure & Capital Works Branch  
 Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email [KimM.Harris@act.gov.au](mailto:KimM.Harris@act.gov.au)  
 Infrastructure Finance and Capital Works | Chief Minister, Treasury and Economic Development Directorate | ACT Government  
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 2601 | [www.act.gov.au](http://www.act.gov.au)

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---

**From:** Ogden, Ralph  
**Sent:** Monday, 18 March 2019 9:25 AM  
**To:** Harris, KimM <[KimM.Harris@act.gov.au](mailto:KimM.Harris@act.gov.au)>  
**Cc:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Crisp, Sarah <[Sarah.Crisp@act.gov.au](mailto:Sarah.Crisp@act.gov.au)>; Mangeruca, Maria <[Maria.Mangeruca@act.gov.au](mailto:Maria.Mangeruca@act.gov.au)>; Toomey, Richard <[Richard.Toomey@act.gov.au](mailto:Richard.Toomey@act.gov.au)>  
**Subject:** news on Isabella wetlands [DLM=For-Official-Use-Only]

Hi Kim

I am the new program manager for Healthy Waterways.

We have a Control Group meeting this Thursday. The Control Group facilitates the infrastructure component of project matters from a whole of government perspective.

We have not (to my knowledge) had an update on the Isabella Ponds work since last year. Could you please send me a brief update on the status of the site, recent progress if there's been work done and any issues arising?

Richard Toomey attends the meeting for IFCW, FYI.

Thanks,  
 Ralph

Ralph Ogden | Program Manager, Healthy Waterways Project  
 Catchment Management and Water Policy | Environment, Planning and Sustainable Development Directorate  
 ☎ 02 6207 2207 | ✉ [Ralph.Ogden@act.gov.au](mailto:Ralph.Ogden@act.gov.au)

Dame Pattie Menzies House | 16 Challis Street Dickson  
Environment and Planning Directorate | ACT Government  
GPO Box 158 Canberra ACT 2601 | [www.environment.act.gov.au](http://www.environment.act.gov.au)

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**From:** "Sch 2 2.2(a)(ii)" <[redacted]@guidelineact.com.au>  
**Sent:** 20/03/2019 3:26 AM  
**To:** "Harris, KimM" <KimM.Harris@act.gov.au>; "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Cc:** "Sch 2 2.2(a)(ii)" <[redacted]@smec.com>; "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Sch 2 2.2(a)(ii)" <[redacted]@smec.com>; "Sch 2 2.2(a)(ii)" <[redacted]@pes.net.au>  
**Subject:** RE: Isabella Weir Inspection [SEC=UNCLASSIFIED]

Hi All,

Peter Brown (TCCS Operator) has been in contact with me and has confirmed that he will be onsite this afternoon to lower the pond to allow access to the downstream.

The plan is to open to valve at the footbridge to 15% 'Open' and monitor the progress today.

He will again be onsite tomorrow at first light to adjust the valve to suit to allow safe access to the downstream side of Isabella Weir.

Kind regards,

[redacted]

**Sch 2 2.2(a)(ii) | Project Manager**

16B Bass Street, Queanbeyan NSW 2620

PO Box 537, Queanbeyan NSW 2620

E: [redacted]@guidelineact.com.au

M: [redacted]




---

**From:** Harris, KimM [mailto:KimM.Harris@act.gov.au]  
**Sent:** Wednesday, 20 March 2019 1:20 PM  
**To:** Oxborrow, Stuart; [redacted]; McGrath, Michael  
**Cc:** [redacted]; Taylor, Nick; [redacted]  
**Subject:** FW: Isabella Weir Inspection [SEC=UNCLASSIFIED]

All,

Please see below advice from [redacted]. 9am seems is the chosen time for the inspection.

Please meet in the northern side cul de sac.

Regards

*Kim Harris*

Kim Harris | Senior Project Officer | Civil Infrastructure & Capital Works Branch

Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email KimM.Harris@act.gov.au

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**From:** [Sch 2 2.2(a)(ii)]@pes.net.au]  
**Sent:** Wednesday, 20 March 2019 1:04 PM  
**To:** McGrath, Michael <Michael.McGrath@act.gov.au>; Harris, KimM <KimM.Harris@act.gov.au>  
**Subject:** RE: Isabella Weir Inspection

Hi Kim,

I just left message on your phone. I have checked the current water level this morning at 11:15 am. In the last 24 hours, the water level has only dropped 50mm to 80mm and currently, the water is about 400mm above the slab level. I would not recommend accessing the downstream side even with Gumboots.

[Sch 2 2.2(a)(ii)] just called and advised me that he can't make to the site today. He has medical appointments for the rest of the day. He will go to the Weir in the morning between 6 am to 6:30 am and open the bottom valve fully and wait until the water drains out to the bottom of the concrete slab at Isabella Weir. It should take 2 to 3 hours. Therefore I suggest the inspection be carried out tomorrow at 9am. Please let me know.

Regards

[Sch 2 2.2(a)(ii)]  
 Principal's Authorised Person (PAP)  
 Professional Engineering Service Pty Limited ACN 057 633 897  
 Mobile - [Sch 2 2.2(a)(ii)]



**From:** [Sch 2 2.2(a)(ii)]@pes.net.au>  
**Sent:** Wednesday, 20 March 2019 7:23 AM  
**To:** 'McGrath, Michael' <Michael.McGrath@act.gov.au>; 'Oxborrow, Stuart' <Stuart.Oxborrow@act.gov.au>; 'Harris, KimM' <KimM.Harris@act.gov.au>; [Sch 2 2.2(a)(ii)]@smec.com>; [Sch 2 2.2(a)(ii)]@smec.com>  
**Cc:** [Sch 2 2.2(a)(ii)]@guidelineact.com.au>  
**Subject:** Isabella Weir Inspection

Hi Michael/Kim,

[Sch 2 2.2(a)] has advised me that the water has not come down yet to allow safe access. I suggest we delay the inspection until tomorrow morning at 8am. Please let me know suitable time for tomorrow.

Thanks

[Sch 2 2.2(a)(ii)]  
 Principal's Authorised Person (PAP)  
 Professional Engineering Service Pty Limited ACN 057 633 897  
 Mobile - [Sch 2 2.2(a)(ii)]



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-----

**From:** "Ogden, Ralph" <Ralph.Ogden@act.gov.au>  
**Sent:** 21/03/2019 3:26 PM  
**To:** "Toomey, Richard" <Richard.Toomey@act.gov.au>; "Harris, KimM" <KimM.Harris@act.gov.au>  
**Cc:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** RE: news on Isabella wetlands [DLM=For-Official-Use-Only]

Thanks Richard

Looks like we'll have to hold further discussions about how to handle this and get the best outcome in the wetland.

Ralph

Ralph Ogden | Program Manager, Healthy Waterways Project  
Catchment Management and Water Policy | Environment, Planning and Sustainable Development Directorate  
☎ 02 6207 2207 | ✉ [Ralph.Ogden@act.gov.au](mailto:Ralph.Ogden@act.gov.au)

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For discussion.

Regards,  
Richard.

**Richard Toomey | Senior Project Officer**  
Phone [02 6207 3638](tel:0262073638) | Mobile [0466 403 641](tel:0466403641) | Email: [richard.toomey@act.gov.au](mailto:richard.toomey@act.gov.au)

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Government  
Nature Conservation House, Corner of Benjamin Way and Emu Bank, Belconnen, ACT, 2617 | PO Box 158 CANBERRA ACT 2601  
| [www.act.gov.au](http://www.act.gov.au)

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**To:** Harris, KimM <[KimM.Harris@act.gov.au](mailto:KimM.Harris@act.gov.au)>  
**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; Toomey, Richard <[Richard.Toomey@act.gov.au](mailto:Richard.Toomey@act.gov.au)>  
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We have also asked TCCS for an update on plant establishment. I'm not sure if you are aware but we have incorporated a 24-month 'establishment phase' for wetland plants as they occur within the WSUD assets we are building. The policy was introduced to reduce the risk that TCCS/ACT Govt received assets that had problems with their plant communities (which serve to filter the stormwater).

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Are there plans for surveillance and maintenance of plans beyond the 6-month consolidation period you refer to?

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Catchment Management and Water Policy | Environment, Planning and Sustainable Development Directorate  
☎ 02 6207 2207 | ✉ [Ralph.Ogden@act.gov.au](mailto:Ralph.Ogden@act.gov.au)

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**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
**Subject:** RE: news on Isabella wetlands [DLM=For-Official-Use-Only]

Thanks Kim.

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**Cc:** Toomey, Richard <[Richard.Toomey@act.gov.au](mailto:Richard.Toomey@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>  
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Hi Ralph,

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#### **Isabella Weir and Wetlands Current status;**

Minor repairs and maintenance have been undertaken over the last month.  
Ongoing monitoring will be carried out.

The weir is substantially complete.

**Risk and Consequence Assessment:**

The risk and consequence assessment is ongoing, and is on program.

**Wetlands Consolidation:**

A meeting to inspect the Southern wetlands was undertaken on Monday 18 March.

All relevant stakeholders will undertake another inspection week of 26<sup>th</sup> March, it is anticipated the southern wetlands will commence the 26 week consolidation period by the end of March.

The Northern wetlands were also inspected and it is anticipated consolidation will commence in April, weather dependent.

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Regulatory Plan is being worked on with an anticipated completion April / May dependent on the regulators commentary.

I have also provided sequence and staging photos to Richard.

Please do not hesitate to contact me if I can be of further assistance.

Regards

*Kim Harris*

Kim Harris | Senior Project Officer | Civil Infrastructure & Capital Works Branch

Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email [KimM.Harris@act.gov.au](mailto:KimM.Harris@act.gov.au)

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2601 | [www.act.gov.au](http://www.act.gov.au)



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**Subject:** RE: news on Isabella wetlands [DLM=For-Official-Use-Only]

Great, thanks!

Ralph Ogden | Program Manager, Healthy Waterways Project

Catchment Management and Water Policy | Environment, Planning and Sustainable Development Directorate

☎ 02 6207 2207 | ✉ [Ralph.Ogden@act.gov.au](mailto:Ralph.Ogden@act.gov.au)

---

**From:** Harris, KimM

**Sent:** Monday, 18 March 2019 9:44 AM

**To:** Ogden, Ralph <[Ralph.Ogden@act.gov.au](mailto:Ralph.Ogden@act.gov.au)>

**Cc:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Crisp, Sarah <[Sarah.Crisp@act.gov.au](mailto:Sarah.Crisp@act.gov.au)>; Mangeruca, Maria <[Maria.Mangeruca@act.gov.au](mailto:Maria.Mangeruca@act.gov.au)>; Toomey, Richard <[Richard.Toomey@act.gov.au](mailto:Richard.Toomey@act.gov.au)>

**Subject:** RE: news on Isabella wetlands [DLM=For-Official-Use-Only]

Good morning Ralph,



I will have something to you before Thursday.

Regards

*Kim Harris*

Kim Harris | Senior Project Officer | Civil Infrastructure & Capital Works Branch  
 Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email [KimM.Harris@act.gov.au](mailto:KimM.Harris@act.gov.au)  
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**Cc:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Crisp, Sarah <[Sarah.Crisp@act.gov.au](mailto:Sarah.Crisp@act.gov.au)>; Mangeruca, Maria <[Maria.Mangeruca@act.gov.au](mailto:Maria.Mangeruca@act.gov.au)>; Toomey, Richard <[Richard.Toomey@act.gov.au](mailto:Richard.Toomey@act.gov.au)>  
**Subject:** news on Isabella wetlands [DLM=For-Official-Use-Only]

Hi Kim

I am the new program manager for Healthy Waterways.

We have a Control Group meeting this Thursday. The Control Group facilitates the infrastructure component of project matters from a whole of government perspective.

We have not (to my knowledge) had an update on the Isabella Ponds work since last year. Could you please send me a brief update on the status of the site, recent progress if there's been work done and any issues arising?

Richard Toomey attends the meeting for IFCW, FYI.

Thanks,  
 Ralph

Ralph Ogden | Program Manager, Healthy Waterways Project  
 Catchment Management and Water Policy | Environment, Planning and Sustainable Development Directorate  
 ☎ 02 6207 2207 | ✉ [Ralph.Ogden@act.gov.au](mailto:Ralph.Ogden@act.gov.au)  
 Dame Pattie Menzies House | 16 Challis Street Dickson  
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**From:** "Harris, KimM" <KimM.Harris@act.gov.au>  
**Sent:** 21/03/2019 1:16 PM  
**To:** "Toomey, Richard" <Richard.Toomey@act.gov.au>; "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** FW: news on Isabella wetlands [DLM=For-Official-Use-Only]  
**Attachments:** RE: Isabella Weir Landscape Consolidation [SEC=UNCLASSIFIED], FW: Handover of Isabella Pond and Wetlands to TCCS [SEC=UNCLASSIFIED], RE: Isabella Wetlands Weir - soft landscape submission [SEC=UNCLASSIFIED]  
**Importance:** High

FYI

Regards

*Kim Harris*

Kim Harris | Senior Project Officer | Civil Infrastructure & Capital Works Branch  
Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email KimM.Harris@act.gov.au  
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**From:** McGrath, Michael  
**Sent:** Thursday, 21 March 2019 1:14 PM  
**To:** Harris, KimM <KimM.Harris@act.gov.au>  
**Subject:** RE: news on Isabella wetlands [DLM=For-Official-Use-Only]  
**Importance:** High

Kim

I have attached a series of emails which confirm that we will be handing over both the wetlands and weir projects to Mynal's team. When the project is handed over consolidation, the existing GC21 contract with Guideline will be finalised.

Ben McHugh's area has submitted a budget bid for the extended landscape consolidation period now requested for Healthy Waterways projects.

Regards

Michael

**Michael McGrath** | Director – Land Release Infrastructure  
Phone 02 6207 1491 | Mobile 0403 939 920 | Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)  
Infrastructure Delivery | Transport Canberra and City Services | ACT Government  
490 Northbourne Avenue, Dickson | GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Harris, KimM  
**Sent:** Thursday, 21 March 2019 12:12 PM

**To:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>

**Cc:** Stellios, George <[George.Stellios@act.gov.au](mailto:George.Stellios@act.gov.au)>; Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; Toomey, Richard <[Richard.Toomey@act.gov.au](mailto:Richard.Toomey@act.gov.au)>

**Subject:** FW: news on Isabella wetlands [DLM=For-Official-Use-Only]

Good afternoon Michael,

Richard has discussed the below issue this morning with Nick and I, from our conversation I understand this has been discussed several times previously.

I am looking for your assistance to reinforce our position on Isabella Weir and Wetlands, I understand that on previous occasions you have had this same discussion with various parties involved with the healthy water ways projects and unfortunately we are probably now in a position where we have to do it yet again.

May I suggest you send me yet another email to reinforce your position.

Thank you for your assistance yet again.

Kim

Regards

*Kim Harris*

Kim Harris | Senior Project Officer | Civil Infrastructure & Capital Works Branch

Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email [KimM.Harris@act.gov.au](mailto:KimM.Harris@act.gov.au)

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**Cc:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>

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For discussion.

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Phone [02 6207 3638](tel:0262073638) | Mobile [0466 403 641](tel:0466403641) | Email: [richard.toomey@act.gov.au](mailto:richard.toomey@act.gov.au)

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Ralph Ogden | Program Manager, Healthy Waterways Project

Catchment Management and Water Policy | Environment, Planning and Sustainable Development Directorate

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Dame Pattie Menzies House | 16 Challis Street Dickson

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**From:** "McGrath, Michael"  
**Sent:** 25/10/2018 7:28 PM  
**To:** "Smith, Jeremy" <Jeremy.Smith@act.gov.au>  
**Subject:** RE: Isabella Weir Landscape Consolidation [SEC=UNCLASSIFIED]

Jeremy

Ben has done this for a number of projects, including Isabella Weir, which started before the elongated landscape requirement was introduced by Health Waterways.

Regards

Michael

**Michael McGrath | Senior Program Manager – Land Release Infrastructure**  
**Phone 02 6207 1491** | Mobile 0403 939 920 | Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

---

**From:** Smith, Jeremy  
**Sent:** Thursday, 25 October 2018 2:58 PM  
**To:** McGrath, Michael <Michael.McGrath@act.gov.au>  
**Cc:** McHugh, Ben <Ben.McHugh@act.gov.au>  
**Subject:** Isabella Weir Landscape Consolidation

Hi Mate – do you know if we put up a bid to cover an elongated landscape consolidating period?

Jez

**Jeremy Smith | A/g Director Capital Works**  
**Phone 02 6207 2738 | Fax 02 6207 6212**  
Transport Canberra and City Services | ACT Government  
Level 7, 490 Northbourne Ave, Dickson ACT 2602 | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

This email, and any attachments, may be confidential and also privileged. If you are not the intended recipient, please notify the sender and delete all copies of this transmission along with any attachments immediately. You should not copy or use it for any purpose, nor disclose its contents to any other person.



**From:** "McGrath, Michael"  
**Sent:** 26/06/2018 10:57 PM  
**To:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** FW: Handover of Isabella Pond and Wetlands to TCCS [SEC=UNCLASSIFIED]  
**Attachments:** NOTICE OF DECISION AMENDMENT S197C - 201527832 - SIGNED Isabella Weir.pdf, Signed Conditional Certificate of Design Acceptance for Isabella Weir (003).pdf, Letter of Design Review Isabella Pond Wetlands (Draft) (002).pdf  
**Importance:** High

Nick

Here is the email trail confirming to Ben that the works will be handed over to Mynal. Please also note that this advice was provided to Asset Acceptance also.

Following this correspondence conversations were held between Darren Smith and Ben McHugh. I was verbally advised by Darren that the proposed handover was to be as detailed below. Darren may have something in writing from Ben confirming their discussions.

Regards

Michael

**Michael McGrath | Senior Program Manager - Civil Infrastructure Delivery**  
**Phone 02 6207 1491** | Fax 02 6205 3909 Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)  
Infrastructure, Finance and Capital Works, Chief Minister, Treasury and Economic Development Directorate | **ACT Government**  
Level 2, Nature Conservation House, Emu Bank Belconnen ACT | GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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**From:** McGrath, Michael  
**Sent:** Wednesday, 25 October 2017 10:18 AM  
**To:** Joseph, Gabriel <Gabriel.Joseph@act.gov.au>  
**Cc:** McHugh, Ben <Ben.McHugh@act.gov.au>  
**Subject:** FW: Handover of Isabella Pond and Wetlands to TCCS [SEC=UNCLASSIFIED]

Gabriel

As requested, this is the correspondence that I sent to Ben. Thank you for your suggestion to coordinate the meeting with Ben and yourself.

Regards

Michael

**Michael McGrath | Senior Program Manager - Civil Infrastructure Delivery**  
**Phone 02 6207 1491** | Fax 02 6205 3909 Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)  
Infrastructure, Finance and Capital Works, Chief Minister, Treasury and Economic Development Directorate | **ACT Government**  
Level 2, Nature Conservation House, Emu Bank Belconnen ACT | GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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**From:** McGrath, Michael  
**Sent:** Wednesday, 25 October 2017 7:57 AM  
**To:** McHugh, Ben <[Ben.McHugh@act.gov.au](mailto:Ben.McHugh@act.gov.au)>  
**Subject:** Handover of Isabella Pond and Wetlands to TCCS [SEC=UNCLASSIFIED]

Ben

As discussed, at the completion of the Isabella Ponds and Wetlands project, it is our intention to undertake a single handover of this capital works project. The project is a single capital works project fully funded by the ACT Government.

The ACT Government funded the wetlands as part of the \$8m contribution required to obtain the Healthy Waterways (HW) funding from the Commonwealth. Civil Infrastructure Delivery (CID) is delivering the capital works project and providing updates to the HW team so they can meet their reporting commitments to the Commonwealth

The attached DA approval for the wetlands was obtained as an amendment to the existing Isabella Weir DA. I have also attached the signed conditional certificate of design acceptance provided by Roads ACT and letter of design review provided by the Senior Manager Development Review and Coordination for this project. At the commencement of the project it was intended that the weir and wetlands will be handed over to Mynal and his team. We have been working closely with the Dam Regulator and Mynal's team to ensure that all of the requirements of the new Dam Safety Code are satisfied.

We had provided the wetlands to Gabriel and his team during design development and had incorporated their comments into the tendered works. It also should be noted that the wall design was undertaken at tender on assumed design criteria. These were confirmed after the pond was drained and the contractor's structural design consultant verified the wall design.

In our discussions you suggested that it might be prudent to meet with yourself, Gabriel and Mynal to clarify any issues associated with the handover process. I will organise this to suit your availability.

Regards

Michael

**Michael McGrath | Senior Program Manager - Civil Infrastructure Delivery**

**Phone 02 6207 1491 | Fax 02 6205 3909 Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)**

Infrastructure, Finance and Capital Works, Chief Minister, Treasury and Economic Development Directorate | **ACT Government**  
Level 2, Nature Conservation House, Emu Bank Belconnen ACT | GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

# Notice of decision

Under Part 7 of the *Planning and Development Act 2007*

## Section 197 Amendment

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DA NO: 201527832/C

DATE LODGED: 31-May-16

DATE OF DECISION: 6/07/2016

BLOCK: 3

SECTION: 64

SUBURB: GREENWAY

STREET NO AND NAME: Drakeford Drive

APPLICANT: SMED

LESSEE: ACT Government

### THE PROPOSAL

Pursuant to section 197 of the *Planning and Development Act 2007*, approval is sought to amend development approval No. 201527832 dated 22/10/2015. For the list of requested amendments refer to the development application form.

### THE DECISION

I, Ada Park, delegate of the planning and land authority, pursuant to section 198 of the Act, hereby **approve** to amend the development approval, in accordance the application made under section 197 of the Act, in accordance with the plans, drawings and other documents and items submitted with the application and endorsed as forming part of this approval.

### PUBLIC NOTIFICATION

Pursuant to S198B of the *Planning and Development Act 2007*, the authority waived the requirement to publicly notify the amendment of the development approval.

The authority is satisfied that:

(a) no-one other than the applicant will be adversely affected by the amendment; and

(b) the environmental impact caused by the amendment will do no more than minimally increase the environmental impact of the development.

### ENTITY ADVICE

Pursuant to Division 7.3.3 of the Act, the application was referred to entities and advice was received. The referral entities' comments are as follows. A response to the advice is provided as appropriate.

#### Conservator of Flora and Fauna

On 10 June 2016 advice was received from the Conservator of Flora and Fauna in relation to the proposal. The advice states that the site is unleased land and therefore the provisions of the Tree Protection Act 2004 do not apply.

The advice is noted.

#### Territory and Municipal Services Directorate

On 27 June 2016 advice was received from Territory and Municipal Services (TAMS) in relation to the proposal. The advice states that the amendment application is supported.

The advice is noted

**Environment Protection Authority (EPA)**

On 6 June 2016 advice was received from EPA in relation to the proposal. The advice states that the amendment application is supported.

The advice is noted

**ActewAGL**

On 15 June 2016 advice was received from the ActewAGL Electricity Networks Division in relation to the proposal. The advice states that the amendment application is approved with conditions.

Matters raised have been incorporated as advice. Conditional statement of compliance is attached to this Notice of Decision.

**ICON WATER**

On 15 June 2016 advice was received from Icon Water in relation to the proposal. The advice states that the amendment application is approved with conditions.

Matters raised have been incorporated as advice. Conditional statement of compliance is attached to this Notice of Decision.

**JEMENA GAS NETWORKS**

On 16 June 2016 advice was received from Icon Water in relation to the proposal. The advice states that the amendment application is approved with conditions.

Matters raised have been incorporated as advice. Conditional statement of compliance is attached to this Notice of Decision.

**REASONS FOR THE DECISION**

In deciding whether to amend the development approval in accordance with the application under section 197 of the Act, I have considered the application and taken action in relation to the application as if the development originally approved had been completed, and the application for the amendment was an application for approval of a development proposal to change the completed development to give effect to the amendment.

The application to amend the development approval satisfactorily meets the requirements for approval. The application was approved because, pursuant to section 198 of the Act, the changed development proposal and the original development proposal would not be in different assessment tracks, and the development after the amendment will be substantially the same as the development for which approval was originally given.

**ADVISORY NOTES (delete if not necessary)**

*This application is approved with the following advisory notes. It is recommended that careful consideration be given to advisory notes prior to commencing work.*

The amendment application must comply with the conditions imposed by the entities.

**INSPECTION OF THE APPLICATION AND DECISION**

A copy of the application and the decision can be inspected between 8:30am and 4:30pm weekdays at the Environment and Planning Directorate Dickson Customer Service Centre at 16 Challis Street, Dickson, ACT.

## **RECONSIDERATION OF THE DECISION**

If the applicant is not satisfied with the decision they are entitled to apply to the planning and land authority for reconsideration within 20 working days of being told of this decision or within any longer period allowed by the planning and land authority.

Application forms and further information about reconsideration are available from the planning and land authority's website and Customer Service Centres. The delegate of the authority reconsidering the decision must be different from, and senior to, the original decision maker. An application for reconsideration does not prevent an application for a review of the same decision being made to the ACT Civil and Administrative Tribunal.

## **REVIEW BY THE ACT CIVIL AND ADMINISTRATIVE TRIBUNAL (ACAT)**

Decisions that are reviewable by the ACAT are identified in Schedule 1 of the *Planning and Development Act 2007*, except for those precluded under Schedule 3 of the *Planning and Development Regulations 2008* – Matters exempt from third-party ACAT review.

## **EVIDENCE**

**Application No. 201527832/C**

**File No. 1-2015/12730/1**

**The Territory Plan zone –PRZ1 Urban Open Space Zone**

**The Development Codes –Parks and Recreation Zone Development Code**

**Representation – One (1) representation received**

**Entity advice – Conservator of Flora and Fauna, EPA, TAMS, Icon Water,**

**ActewAGL (Electricity and Gas)**

## **DELEGATE**



Ada Park

Delegate of the planning and land authority  
Environment and Planning Directorate

6/07/2016

## **CONTACT OFFICER**

Ada Park

Phone: 62071854

Email: [ada.park@act.gov.au](mailto:ada.park@act.gov.au)

# APPENDIX 1

## REVIEW OF THE DECISION

The following notes are provided in accordance with regulation 7 of the *ACT Civil and Administrative Tribunal Regulation 2009*. Refer to the Review by the ACT Civil and Administrative Tribunal (ACAT) section of the Notice of decision for information about its relevance to this development application.

## CONTACT DETAILS

The review authority is the ACT Civil and Administrative Tribunal (ACAT).

| Location   | Contact details  |
|--|--|
| ACT Civil and Administrative Tribunal<br>ACT Magistrates Court Building<br>Knowles Place<br>CANBERRA CITY ACT 2601 | Website: <a href="http://www.acat.act.gov.au">www.acat.act.gov.au</a><br>Email: <a href="mailto:tribunal@act.gov.au">tribunal@act.gov.au</a><br>Telephone: (02) 6207 1740<br>Facsimile: (02) 6207 4855<br>Post: GPO Box 370, CANBERRA, ACT, 2601 |

## POWERS OF THE ACAT

The ACAT is an independent body. It can review on their merits a large number of decisions made by ACT Government ministers, officials and statutory authorities. The ACAT can agree with, change or reject the original decision, substitute its own decision or send the matter back to the decision maker for reconsideration in accordance with ACAT recommendations.

## APPLICATIONS TO THE ACAT

To apply for a review, obtain an application form from the ACAT. You can also download the form from the ACT Legislation Register <http://www.legislation.act.gov.au/af/2009-278/current/pdf/2009-278.pdf>.

If you are applying on behalf of an organisation or association of persons, whether incorporated or not, the Tribunal in deciding whether to support this application will consider the effect of the decision being reviewed on the interests of the organisation or association in terms of its objects or purposes. A copy of the relevant documents will be required to be lodged with the Tribunal.

## TIME LIMITS FOR APPLICATIONS

The time limit to make a request for a review is 28 days from receiving this Notice of decision. The time limit can be extended in some circumstances. Check with the ACAT for more details.

## FEES

Applications to the ACAT, including an application to be joined as a party to a proceeding, require payment of a fee of not less than \$178 (the Tribunal Registry will advise of the current fee), unless you are receiving legal or financial assistance from the ACT Attorney-General. You can apply to have the fee waived on the grounds of hardship, subject to approval (refer to section 22T of the *ACT Civil and Administrative Tribunal Act 2008*). Decisions to grant assistance are made on the grounds of hardship and that it is reasonable, in all the circumstances, for the assistance to be granted. Write to: The Chief Executive, Justice and Community Safety Directorate, GPO Box 158, CANBERRA ACT 2601. Ask the ACAT for more details.

## TIME LIMITS FOR REVIEWS OF DECISIONS

The ACAT is required to decide appeals in land and planning and tree protection cases within 120 days after the lodging of the appeal, unless that period is extended by the ACAT upon it being satisfied that it is in the interests of justice to do so.

## FORMS OF LEGAL, FINANCIAL AND OTHER ADVICE AND ASSISTANCE

The following organisations can provide advice and assistance if you are eligible:

- ACT Attorney-General, write to The Chief Executive, Justice and Community Safety Directorate, GPO Box 158, CANBERRA, ACT, 2601;
- the ACT Legal Aid Office, telephone 1300 654314;
- Legal Advice Bureau, telephone (02) 6247 5700;
- ACT Council of the Ageing, telephone (02) 6282 3777; and
- Welfare Rights and Legal Centre, telephone (02) 6247 2177.

### AWARDING OF COSTS

You will have to pay any costs involved in preparing or presenting your case. The ACAT also has the power to award costs against a party if the party contravenes a direction of the ACAT and the ACAT considers it in the interests of justice to make such an order. This power is in addition to the power of the ACAT to strike out a party and to dismiss an application for failure to comply with the ACAT's directions.

### ACCESS TO DOCUMENTS ABOUT THE DECISION

You may apply for access to any documents you consider relevant to this decision under the ACT Freedom of Information Act 1989. Information about Freedom of information requests is available on the planning and land authority's web site or by contacting us by phone on (02) 6207 1923.

### PROCEDURES OF THE ACAT

The procedures of the ACAT are outlined on the ACAT's website, including in the Guide to the Land and Planning Division and the Guide to the Hearing. Contact the ACAT for alternative ways to access information about the ACAT's procedures.

### TRANSLATION AND INTERPRETER SERVICES

The ACT Government's translation and interpreter service runs 24 hours a day, every day of the week. Telephone 131 450.

|            |   |
|------------|---|
| ENGLISH    | If you need interpreting help, telephone:                 |
| ARABIC     | : إذا احتجت لمساعدة في الترجمة الشفوية ، إتصل برقم الهاتف |
| CHINESE    | 如果你需要传译员的帮助，请打电话：   |
| CROATIAN   | Ako trebate pomoć tumača telefonirajte:                   |
| GREEK      | Αν χρειάζεστε διερμηνέα τηλεφωνήστε στο                   |
| ITALIAN    | Se avete bisogno di un interprete, telefonate al numero:  |
| MALTESE    | Jekk għandek bżonn l-għajjuna t'interpretu, ċempel:       |
| PERSIAN    | : اگر به ترجمه شفاهی احتیاج دارید به این شماره تلفن کنید: |
| PORTUGUESE | Se você precisar da ajuda de um intérprete, telefone:     |
| SERBIAN    | Ако вам је потребна помоћ преводиоца телефонирајте:       |
| SPANISH    | Si necesita la asistencia de un intérprete, llame al:     |
| TURKISH    | Tercümana ihtiyacınız varsa lütfen telefon ediniz:        |
| VIETNAMESE | Nếu bạn cần một người thông-ngôn hãy gọi điện-thoại:      |

### TRANSLATING AND INTERPRETING SERVICE

# 131 450

Canberra and District - 24 hours a day, seven days a week



**SMEC**  
**Suite 2, Level 1**  
**243 Northbourne Avenue**  
**Lyneham Canberra ACT 2602**

**Attention:** Sch 2 2.2(a)(ii)

**26/05/2015**

### **Conditional Certificate of Design Acceptance for Isabella Weir Upgrade**

On behalf of the Territory and Municipal Services (TAMS) Directorate this Conditional Certificate of Design Acceptance is issued for the DA purposes.

Please note that your drawings have not been checked. This Certificate is issued on the basis of the Interim Design Report submitted, pending the successful completion of the final design.

It is recommended that all aspects of the design be subject to rigorous final design checking by your office prior to calling of tenders.

The following conditions apply to this certificate:

1. The issue of this certificate does not waiver or diminish the continuing responsibilities of the chartered engineer with respect to the efficiency and sufficiency of the design nor does it absolve the designer and contractor of continuing obligations under the ACT Dam Safety Code;
2. The final detailed design is approved by SMEC's independent expert reviewers;
3. The final detailed design meets the ACT Dam Safety Code or acceptance of the design as per NSW Dam Safety Committee processes that will involve a detailed review of the design by an expert panel of the Utilities Technical Regulation part of what is now Access Canberra;
4. Any review of the final detailed design that Roads ACT might require
5. Any proposed amendments to the design as accepted by this certificate should be submitted for acceptance.
6. Further Quality Audits may be carried out on the project during the course of design/construction. These audits are part of a "Total Quality" approach adopted to assure the ACT Community that assets for which they accept continuing responsibility are designed and constructed to the best quality.
7. You are required to submit the notices relating to commencement of work prior to any construction activity.

Yours faithfully,

**Ben McHugh**  
**Senior Manager**  
**Capital Works Design Delivery**



**Attachment A**

**Certificate of Design Acceptance**

**Dated 26/05/2015**

**Documentation for Design Acceptance for**

**ISABELLA WEIR UPGRADE**

| <b>Document Ref No</b> | <b>Revision No</b> | <b>Document Ref No</b> | <b>Revision No</b> |
|------------------------|--------------------|------------------------|--------------------|
| Interim Design Report  | 20/04/2015         |                        |                    |
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## LETTER OF DESIGN REVIEW (DRAFT)

Applicant: CMTEDD  
 Address: Macarthur House, 12 Wattle Street, LYNEHAM ACT 2602  
 Contact: Leigh Crocker  
 Project Title: **ISABELLA PONDS WETLAND**  
 Consultant: Alluvium  
 Address: 21-23 Stewart Street, Richmond Victoria 3121  
 Contact: **Sch 2 2.2(a)(ii)**  
 TCCS Project Lead: Anthonie Lambert

Dear Leigh

Date: 1 February 2017

On behalf of the Transport Canberra and City Services (TCCS) Directorate, this draft Letter of Design Review is issued to confirm acceptance of the Drawings and Documents listed in Attachment A.

TCCS has carried out selective audits of certain elements of the design only from the documentation submitted. This letter of design review is therefore issued on the basis of the Consultant's certification that each design element prepared by the Consultant complies with the design criteria and the standards. This letter addresses the following design components.

|   |   |
|---|---|
| Civil Works for Northern Wetland (excluding the Retaining Wall) | X |
| Civil Works for Southern Wetland (excluding the Retaining Wall) | X |
| Landscape   | X |

We note that this Letter excludes the Retaining Walls. The Contractor is to submit to TCCS the Detailed Design Drawings and Documentation for the Retaining Walls for design acceptance. The Documentation should include a Design Certificate from a Structural Engineer with chartered status.

This Letter has been issued as a Draft as the Asset Completion and Handover Process for the assets on the ACT Healthy Waterways Project have not yet been agreed between TCCS and the ACT Healthy Waterways Team. Once this has been agreed, this draft Letter of Design Review will be reissued as Final with the final asset completion and handover conditions included.

The audit undertaken on the drawings and documents submitted does not constitute a thorough technical design review by TCCS and the issue of this Letter does not in any way abrogate the Consultant's responsibility for the integrity of the design.



TCCS may undertake or arrange audits during the course of construction to ensure that the Works are constructed strictly in accordance with the Drawings and Documents and best work practices.

This Letter is issued with the following conditions:

1. The issue of this Letter does not waive or diminish the continuing responsibilities of the Consultant with respect to the suitability and integrity of the design; nor does it absolve the Consultant of continuing obligations under the Standards.
2. Any Landscape Management and Protection Plan (LMPP) submitted have been approved.
3. Should any road closure be proposed, this will be subject to a separate design approval from Roads ACT of a Temporary Traffic Management Plan.
4. Any proposed amendments to the design as accepted by this Letter shall be submitted for acceptance prior to the amendments being implemented.
5. On the satisfactory completion of all design and construction activities, a Certificate of Operational Acceptance will be issued for the project on receipt of all relevant documents as specified in TCCS Reference Document 8 - *Requirements for Works as Executed Quality Records*. Operational Acceptance will be processed only when all documents are received in this office. Under special circumstances, a part submission may be accepted at the Manager's discretion to accelerate the acceptance process; however the processing time for the issue of the certificate in such cases will be counted from the date of receipt of the last document in the package.

**Jeff Bell**

on behalf of

**Gabriel Joseph | Senior Manager Development Review and Coordination  
Strategy, Innovation and Customer Experience | Transport Canberra and City Services Directorate  
ACT Government**

Note that the definition of the terms 'Design Acceptance', 'Consultant', 'Works' and 'Standards' shall be the same as that given in TCCS Reference Document 6.

**Attachments:**

Attachment A: Drawings and Documentation included in the Letter of Design Review

## DRAWINGS AND DOCUMENTS INCLUDED IN THE LETTER OF DESIGN REVIEW

### *Civil Drawings*

| Drawing Number    | Drawing Title                               | Revision at TCCS submission |
|-------------------|---|-----------------------------|
| IWS-01            | LOCALITY PLAN                               | E                           |
| IWS-02            | GENERAL NOTES                               | F                           |
| IWS-03            | EXISTING CONDITIONS PLAN                    | E                           |
| IWS-04            | GENERAL ARRANGEMENT PLAN                    | E                           |
| IWC-01            | SOUTH WETLAND CH0 - CH220                   | F                           |
| IWC-02            | SOUTH WETLAND CH220 - CH384                 | F                           |
| IWC-03            | SOUTH WETLAND - LONGITUDINAL SECTION        | F                           |
| IWC-04            | SOUTH WETLAND - CROSS SECTIONS              | F                           |
| IWC-05            | SOUTH WETLAND - CROSS SECTIONS              | F                           |
| IWC-06            | NORTH WETLAND CH0 - CH130                   | F                           |
| IWC-07            | NORTH WETLAND CH130 - CH280                 | F                           |
| IWC-08            | NORTH WETLAND CH280 - CH440                 | F                           |
| IWC-09            | NORTH WETLAND CH420 - CH506                 | F                           |
| IWC-10            | NORTH WETLAND - LONGITUDINAL SECTION        | F                           |
| IWC-11            | NORTH WETLAND - CROSS SECTIONS              | F                           |
| IWC-12            | NORTH WETLAND - CROSS SECTIONS              | F                           |
| IWC-13            | NORTH WETLAND - CROSS SECTIONS              | F                           |
| IWC-14            | RETAINING WALL PLAN                         | E                           |
| IWC-15            | RETAINING WALL PLAN - LONGITUDINAL SECTIONS | E                           |
| <del>IWC-16</del> | <del>RETAINING WALL DETAIL</del>            | <del>F</del>                |
| IWC-17            | CONCRETE WEIR DETAIL                        | E                           |
| IWC-18            | SOUTH WETLAND - BAFFLE PIT DETAIL           | E                           |
| IWC-19            | NORTH WETLAND - BAFFLE PIT DETAIL           | E                           |
| IWC-20            | SOUTH WETLAND - PIPE LONGITUDINAL SECTIONS  | F                           |
| IWC-21            | NORTH WETLAND - PIPE LONGITUDINAL SECTIONS  | F                           |
| IWC-22            | PIT SCHEDULE & SUBMERGED OFFTAKE DETAIL     | F                           |
| IWC-23            | TYPICAL EDGE DETAIL                         | E                           |
| IWC-24            | NORTH WETLAND MAINTENANCE ACCESS DETAIL     | F                           |
| IWC-25            | WATER LEVEL GAUGE                           | E                           |
| IWC-26            | NORTH WETLAND SETOUT POINTS                 | E                           |
| IWC-27            | SOUTH WETLAND SETOUT POINTS                 | E                           |
| IWC-28            | SETOUT POINTS                               | E                           |
|                   |   |                             |

*Landscape Drawings*

| <b>Drawing Number</b> | <b>Drawing Title</b>                     | <b>Revision at TCCS submission</b> |
|-----------------------|--|------------------------------------|
| IWL-00                | COVER PAGE                               | C                                  |
| IWL-01                | LANDSCAPE CONTEXT PLAN                   | B                                  |
| IWL-02                | PLANTING SCHEDULE                        | C                                  |
| IWL-03                | DETAILED PLANTING PLAN                   | B                                  |
| IWL-03.1              | IWL03 PLANTING SCHEDULE                  | B                                  |
| IWL-04                | DETAILED PLATING PLAN                    | B                                  |
| IWL-04.1              | IWL04 PLANTING SCHEDULE                  | B                                  |
| IWL-05                | DETAILED PLATING PLAN                    | B                                  |
| IWL-05.1              | IWL05 PLANTING SCHEDULE                  | B                                  |
| IWL-06                | DETAILED PLATING PLAN                    | B                                  |
| IWL-06.1              | IWL06 PLANTING SCHEDULE                  | B                                  |
| IWLD-01               | LANDSCAPE DETAILS                        | B                                  |
| IWLD-02               | LANDSCAPE DETAILS                        | B                                  |
| IWLD-03               | LANDSCAPE DETAILS                        | B                                  |
| IWLD-04               | PROTECTIVE BIRD NETTING PLAN             | B                                  |
| IWLD-05               | PLANTING DETAIL                          | B                                  |
| IWLMPP                | LANDSCAPE MANAGEMENT AND PROTECTION PLAN | B                                  |

**From:** "Chowdhury, Mynul" <Mynul.Chowdhury@act.gov.au>

**Sent:** 01/08/2018 1:01 PM

**To:** "Joseph, Gabriel" <Gabriel.Joseph@act.gov.au>; "Kelly, Joel" <Joel.Kelly@act.gov.au>

**Cc:** "McHugh, Ben" <Ben.McHugh@act.gov.au>; "McGrath, Michael" <Michael.McGrath@act.gov.au>; "Dunn, Maggie" <Maggie.Dunn@act.gov.au>; "Dias, Carl" <Carl.Dias@act.gov.au>; "Lambert, Anthonie" <Anthonie.Lambert@act.gov.au>; "Ligeros, Ria" <Ria.Ligeros@act.gov.au>; "Hill, Diana" <Diana.Hill@act.gov.au>; "Bell, Jeff" <Jeff.Bell@act.gov.au>; "Vu, Noreen" <Noreen.Vu@act.gov.au>; "Gilles, Jennie" <Jennie.Gilles@act.gov.au>

**Subject:** RE: Isabella Wetlands Weir - soft landscape submission [SEC=UNCLASSIFIED]

Hi Gabriel,

Noreen will do OA for the wetlands and I will do the weir/dam structure from RM.

Thanks,

Mynul

---

**From:** Joseph, Gabriel

**Sent:** Wednesday, 1 August 2018 12:58 PM

**To:** McHugh, Ben <Ben.McHugh@act.gov.au>; Chowdhury, Mynul <Mynul.Chowdhury@act.gov.au>; Kelly, Joel <Joel.Kelly@act.gov.au>; McGrath, Michael <Michael.McGrath@act.gov.au>; Dunn, Maggie <Maggie.Dunn@act.gov.au>; Dias, Carl <Carl.Dias@act.gov.au>; Lambert, Anthonie <Anthonie.Lambert@act.gov.au>; Ligeros, Ria <Ria.Ligeros@act.gov.au>; Hill, Diana <Diana.Hill@act.gov.au>; Bell, Jeff <Jeff.Bell@act.gov.au>

**Subject:** RE: Isabella Wetlands Weir - soft landscape submission [SEC=UNCLASSIFIED]

Ben

We are happy to deal with this in the interim.

Maggie

Please organise the submission to be lodged through us.

Anthonie

Please take the lead for the wetland component under the ACT Healthy Waterway Project in consultation with the nominated people from Joel and Mynul.

Joel/Mynul

We will depend on both of you for the weir component of the project.

Michael

Please ask your nominated officer to work with Anthonie and Maggie in terms of the lodgement. Please note Maggie is going on leave for few weeks from Friday this week. Both Ria and Diana will cover when she is away. I suggest you organise a meeting tomorrow with your key people, Jeff, Anthonie and Maggie/Diana/Ria, to organise a smooth handover.

Thanks to all.

**Regards**

Gabriel Joseph FIEAust CPEng NER | Senior Manager Development Review & Coordination

Phone 02 6207 6581 | Email: [gabriel.joseph@act.gov.au](mailto:gabriel.joseph@act.gov.au)

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---

**From:** McHugh, Ben

**Sent:** Wednesday, 1 August 2018 12:03 PM

**To:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>; Kelly, Joel <[Joel.Kelly@act.gov.au](mailto:Joel.Kelly@act.gov.au)>; Joseph, Gabriel <[Gabriel.Joseph@act.gov.au](mailto:Gabriel.Joseph@act.gov.au)>

**Subject:** FW: Isabella Wetlands Weir - soft landscape submission [SEC=UNCLASSIFIED]

**Importance:** High

Gents,

Given the shit of Capital Works to Transport Canberra, the asset inspection process for these types of works needs to be considered from an interim perspective until the long term solution is finalised as part of the functional alignment process.

Also, can you please each nominate an officer who can attend the inspection of the Isabella Weir project?

Thanks

Ben

---

**From:** McGrath, Michael

**Sent:** Wednesday, 1 August 2018 7:34 AM

**To:** McHugh, Ben <[Ben.McHugh@act.gov.au](mailto:Ben.McHugh@act.gov.au)>

**Subject:** FW: Isabella Wetlands Weir - soft landscape submission [SEC=UNCLASSIFIED]

**Importance:** High

Ben

Can you please advise on how we should progress. PES are currently trying to get the Isabella Wetlands works handed over to TCCS.

Regards

Michael

**Michael McGrath | Senior Program Manager – Land Release Infrastructure**

**Phone 02 6207 1491** | Mobile 0403 939 920 | Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)

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---

**From:** Dias, Carl

**Sent:** Tuesday, 31 July 2018 3:54 PM

**To:** McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Dunn, Maggie <[Maggie.Dunn@act.gov.au](mailto:Maggie.Dunn@act.gov.au)>

Cc: [Sch 2 2 2\(a\)\(ii\)@pes.net.au](mailto:Sch 2 2 2(a)(ii)@pes.net.au); Joseph, Gabriel <[Gabriel.Joseph@act.gov.au](mailto:Gabriel.Joseph@act.gov.au)>; Lambert, Anthonie <[Anthonie.Lambert@act.gov.au](mailto:Anthonie.Lambert@act.gov.au)>

**Subject:** RE: Isabella Wetlands Weir - soft landscape submission [SEC=UNCLASSIFIED]

Michael

Thank you for your confirmation. Much appreciated

As you are aware these agreements remained in effect when our section (CWDD) formed part of City Services.

On July 1 2018, we have been moved to Transport Canberra and as such cannot operate on behalf of the Asset owner unless this is covered by an Agreement.

City Services as I understand is currently in the process of making arrangements as part of the Functional Alignment to ensure these matters are addressed.

I am unaware of interim arrangements in place.

Kind Regards

Carl

**From:** McGrath, Michael

**Sent:** Tuesday 31 July 2018 15:12

**To:** Dunn, Maggie; Dias, Carl

**Cc:** [Sch 2 2 2\(a\)\(ii\)@pes.net.au](mailto:Sch 2 2 2(a)(ii)@pes.net.au); Joseph, Gabriel; Lambert, Anthonie

**Subject:** RE: Isabella Wetlands Weir - soft landscape submission [SEC=UNCLASSIFIED]

Carl

I am confirming that both the Isabella Weir and Isabella Wetlands have been delivered by the Land Release Infrastructure (formerly Civil Infrastructure Delivery of IFCW).

The agreement that we have in place is that this combined project is to be assessed and handed over through "Capital Works", ie. your area of TCCS. This has previously been agreed by Ben and Darren Smith, as is the usual procedure for LRI/IFCW projects. Mynul is aware of this process as well.

If you have any further queries please contact me.

Regards

Michael

**Michael McGrath | Senior Program Manager – Land Release Infrastructure**

**Phone 02 6207 1491 | Mobile 0403 939 920 | Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)**

Capital Works, Transport Canberra and City Services Directorate | ACT Government

GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** Dunn, Maggie

**Sent:** Tuesday, 31 July 2018 1:23 PM

**To:** Dias, Carl <[Carl.Dias@act.gov.au](mailto:Carl.Dias@act.gov.au)>

**Cc:** [Sch 2 2 2\(a\)\(ii\)@pes.net.au](mailto:Sch 2 2 2(a)(ii)@pes.net.au); McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>; Joseph, Gabriel <[Gabriel.Joseph@act.gov.au](mailto:Gabriel.Joseph@act.gov.au)>; Lambert, Anthonie <[Anthonie.Lambert@act.gov.au](mailto:Anthonie.Lambert@act.gov.au)>

**Subject:** Isabella Wetlands Weir - soft landscape submission [SEC=UNCLASSIFIED]

Good afternoon Carl,

Envirolinks lodged a submission for consolidation commencement of soft landscape assets for the project described in the email below. Michael McGrath has confirmed that this is Capital Works project and it should be referred to you to complete the assessment.



As they are 2 current projects in Isabella Wetlands (Weir by Capital Works and Healthy Waterways by DRC), it was decided that, to maintain project history, they should be stored in one area of the ProjectWise. The project is currently in DRC structure and is available under the following link [7 - SOFT LANDSCAPE CONSOLIDATION COMMENCEMENT](#). Can you please advise me if you are happy to assess and can access it in this location?

I was also advise that [Sch 2.2.2\(a\)\(ii\)](#) is ready to lodge Operational Acceptance for civil and I advised him that he can lodge submission to this location [5 - OPERATIONAL ACCEPTANCE \(CIVIL\)](#)

I would appreciate if;

- You could clarify issues with the assessment with Michael McGrath or Gabriel Joseph, and
- Issues with the location or accessibility of the submission with myself.

Regards,

Maggie Dunn | Operational Coordinator | Development Review & Coordination  
Phone: 02 6205 8261 | Email: [maggie.dunn@act.gov.au](mailto:maggie.dunn@act.gov.au)  
Capital Works and Development Support | Transport Canberra and City Services Directorate | ACT Government  
490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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**From:** McGrath, Michael  
**Sent:** Tuesday, 31 July 2018 12:46 PM  
**To:** Dunn, Maggie <[Maggie.Dunn@act.gov.au](mailto:Maggie.Dunn@act.gov.au)>  
**Subject:** FW: OA Inspection and Handover Isabella Wetlands [SEC=UNCLASSIFIED]

**Michael McGrath | Senior Program Manager – Land Release Infrastructure**  
**Phone 02 6207 1491 | Mobile 0403 939 920 | Email:** [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)  
Capital Works, Transport Canberra and City Services Directorate | ACT Government  
GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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**From:** Taylor, Nick  
**Sent:** Thursday, 28 June 2018 6:21 AM  
**To:** Chowdhury, Mynul <[Mynul.Chowdhury@act.gov.au](mailto:Mynul.Chowdhury@act.gov.au)>  
**Cc:** Oxborrow, Stuart <[Stuart.Oxborrow@act.gov.au](mailto:Stuart.Oxborrow@act.gov.au)>; McGrath, Michael <[Michael.McGrath@act.gov.au](mailto:Michael.McGrath@act.gov.au)>  
**Subject:** OA Inspection and Handover Isabella Wetlands [SEC=UNCLASSIFIED]

Good Morning Mynul

Please let me introduce myself.

I am the Senior Procurement Officer for the Isabella Weir/Wetland Project working for IFCW. My client is Capital Infrastructure Delivery (CID) headed by Michael McGrath with Stuart Oxborrow (CID) as the Senior Engineer. The

Principal Authorised Person (PAP) is [Sch 2 2.2\(a\)\(ii\)](#) from Professional Engineering Services (PES) and the Principal Contractor is [Sch 2 2.2\(a\)\(ii\)](#) from Guideline (GLA).

The purpose of this email is to advise you of the Project and the requirement to acquire your services in the near future for an Operational Acceptance inspection and ultimate Handover of the Isabella Wetlands component of the project. The Wetlands have been designed to improve the water quality and improve recreational use, and consist of large planted areas with a series of intermediate and outlet pools connected by drainage pipes and inspection pits. Both Wetlands are retained by concrete mass block walls of varying heights. A copy of the construction drawings can be forwarded to you if you wish to review in advance.

Ultimately the Weir component will also require a separate OA inspection and subsequent handover.

The current status of the Project is that both the landscaping and the civil component of the Wetland works are well advanced and the team are preparing the necessary documentation to allow an OA inspection to occur.

Please note that we have reached agreement with TCCS that Mynul Chowdhury's team will be undertaking the OA inspection, as is the usual practice for CID projects (see attached email).

We look forward to working with you in the future and will keep you abreast of the project status.

Regards Nick

Nick Taylor | Senior Project Officer | Civil Infrastructure

Phone 02 6207 0118 | Mobile 0451 449 331 [Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)

Infrastructure Finance Capital Works Chief Minister, Treasury and Economic Development Directorate ACT Government

Level 2 Nature Conservation House, 186 Emu Bank Belconnen 2617 | ACT Procurement, GPO Bpx 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:** "Harris, KimM" <KimM.Harris@act.gov.au>  
**Sent:** 22/03/2019 1:10 PM  
**To:** "Martiniello, Patricia" <Patricia.Martiniello@act.gov.au>  
**Cc:** "Taylor, Nick" <Nick.Taylor@act.gov.au>  
**Subject:** RE: Project Officer Feedback - Guideline ACT Pty Ltd [SEC=UNCLASSIFIED]

Hi Trish

Below as requested, I am only making assumptions on these from what I have heard I have only been acting again for Nick for a couple of weeks.

Regards

*Kim Harris*

Kim Harris | Senior Project Officer | Civil Infrastructure & Capital Works Branch  
Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email KimM.Harris@act.gov.au  
Infrastructure Finance and Capital Works | Chief Minister, Treasury and Economic Development Directorate | ACT Government  
Level 2 Nature Conservation House, Cnr Benjamin Way and Emu Bank Belconnen 2617 | ACT Procurement, GPO Box 158 CANBERRA ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

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**From:** Martiniello, Patricia  
**Sent:** Friday, 22 March 2019 12:51 PM  
**To:** Harris, KimM <KimM.Harris@act.gov.au>  
**Subject:** FW: Project Officer Feedback - Guideline ACT Pty Ltd [SEC=UNCLASSIFIED]

Hi Kim,

Can I get you to complete the below please.

Many thanks

Patricia Martiniello | Prequalification Officer  
Procurement ACT | Commercial Services & Infrastructure | Chief Minister, Treasury and Economic Development Directorate |  
PO Box 158, Canberra ACT 2602 |  
P: 6207 9414 E: [Patricia.martiniello@act.gov.au](mailto:Patricia.martiniello@act.gov.au)

---

**From:** Martiniello, Patricia  
**Sent:** Tuesday, 19 March 2019 10:22 AM  
**To:** Harris, KimM <KimM.Harris@act.gov.au>  
**Subject:** FW: Project Officer Feedback - Guideline ACT Pty Ltd [SEC=UNCLASSIFIED]

Hi Kim,

How are we going with feedback for Guideline?

Cheers Trish

**Patricia Martiniello** | Prequalification Officer  
 Procurement ACT | Commercial Services & Infrastructure | Chief Minister, Treasury and Economic Development Directorate |  
 PO Box 158, Canberra ACT 2602 |  
 P: 6207 9414 E: [Patricia.martiniello@act.gov.au](mailto:Patricia.martiniello@act.gov.au)

---

**From:** Toomey, Richard  
**Sent:** Wednesday, 13 March 2019 3:59 PM  
**To:** Taylor, Nick <[Nick.Taylor@act.gov.au](mailto:Nick.Taylor@act.gov.au)>; Harris, KimM <[KimM.Harris@act.gov.au](mailto:KimM.Harris@act.gov.au)>  
**Cc:** Martiniello, Patricia <[Patricia.Martiniello@act.gov.au](mailto:Patricia.Martiniello@act.gov.au)>  
**Subject:** FW: Project Officer Feedback - Guideline ACT Pty Ltd [SEC=UNCLASSIFIED]

Hi Trish,  
 Isabella Weir and Wetland has been managed by Nick Taylor (and Kim Harris).

Hi Nick/Kim,

Can you please respond to Trish's request?

Richard.

---

**From:** Martiniello, Patricia  
**Sent:** Wednesday, 13 March 2019 2:31 PM  
**To:** Toomey, Richard <[Richard.Toomey@act.gov.au](mailto:Richard.Toomey@act.gov.au)>  
**Subject:** Project Officer Feedback - Guideline ACT Pty Ltd

Good afternoon

The Prequalification for the above Contractor is due for renewal.

With regard to the contracts below would you please provide Project Officer feedback for the Contractors and Consultants.

| Project Name   | No             | Delivery in terms of Practical Completion Date | Delivery in terms of Budget | Any Adverse Issues | Unrea |
|--|----------------|--|-----------------------------|--------------------|-------|
| Isabella Weir and Wetland / Water Quality Improvement Construction | 2017.22501.330 | Yes  | Yes                         | No                 | No    |

Feed back is required within five working days from receipt of this email.

Should you have any questions, please do not hesitate to contact Noel Bradfield on Ph. 6207 7154 or [noel.bradfield@act.gov.au](mailto:noel.bradfield@act.gov.au)

**Patricia Martiniello** | Prequalification Officer  
 Procurement ACT | Commercial Services & Infrastructure | Chief Minister, Treasury and Economic Development Directorate |  
 PO Box 158, Canberra ACT 2602 |  
 P: 6207 9414 E: [Patricia.martiniello@act.gov.au](mailto:Patricia.martiniello@act.gov.au)

**From:** "Stellios, George" <George.Stellios@act.gov.au>  
**Sent:** 27/03/2019 9:04 AM  
**To:** "McGrath, Michael" <Michael.McGrath@act.gov.au>  
**Cc:** "Smith, Jeremy" <Jeremy.Smith@act.gov.au>; "Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>; "Taylor, Nick" <Nick.Taylor@act.gov.au>; "Harris, KimM" <KimM.Harris@act.gov.au>  
**Subject:** RE: Isabella Wetlands Landscape consolidation [SEC=UNCLASSIFIED]

Hi Michael

Many thanks for the below details. IFCW will ensure that the project (and contract) continues on that basis.

Regards,  
 George

**George Stellios – a/g Executive Branch Manager, Civil Infrastructure**

w: 02 6207 8705 | m: 0403 052 022

email: [George.Stellios@act.gov.au](mailto:George.Stellios@act.gov.au)

Infrastructure Finance and Capital Works | Chief Minister, Treasury and Economic Development Directorate | ACT Government Nature Conservation House, Cnr Benjamin Way and Emu Bank, Belconnen 2617 | GPO Box 158 Canberra ACT 2601

---

**From:** McGrath, Michael  
**Sent:** Wednesday, 27 March 2019 6:50 AM  
**To:** Stellios, George <George.Stellios@act.gov.au>  
**Cc:** Smith, Jeremy <Jeremy.Smith@act.gov.au>; Oxborrow, Stuart <Stuart.Oxborrow@act.gov.au>; Taylor, Nick <Nick.Taylor@act.gov.au>  
**Subject:** Isabella Wetlands Landscape consolidation [SEC=UNCLASSIFIED]  
**Importance:** High

George

As discussed, this project has been delivered by Infrastructure Land Release (ILR) as part of the Isabella Weir Upgrade project. It is not part delivered as part of the Healthy Waterways (HW) project and is not subject to the 24 month consolidation process implemented on projects that they delivered. It should also be noted that the HW process was developed after the ILR project was awarded.

The process that will be followed on the ILR project is outlined below:

- 1) In accordance with the conditions of our GC 21 contract, the consolidation process is 26 weeks;
- 2) There is an agreed handover process that will be part of the Weir handover process directly to Mynal's team in TCCS;
- 3) After handover, the ILR contract will be finalised in accordance with the GC21 terms and conditions;
- 4) The additional consolidation process on the HW projects will be undertaken by a separate process to be funded by the budget bid submitted by Ben McHugh's team.

Regards

Michael

**Michael McGrath | Director – Land Release Infrastructure**

**Phone 02 6207 1491** | Mobile 0403 939 920 | Email: [michael.mcgrath@act.gov.au](mailto:michael.mcgrath@act.gov.au)

Infrastructure Delivery | Transport Canberra and City Services | ACT Government  
 490 Northbourne Avenue, Dickson | GPO Box 158, Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)

**From:**"Harris, KimM" <KimM.Harris@act.gov.au>

**Sent:**27/03/2019 10:27 AM

**To:**"Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>;"McGrath, Michael" <Michael.McGrath@act.gov.au>

**Cc:**"Taylor, Nick" <Nick.Taylor@act.gov.au>

**Subject:**SMEC Reports email 2 of 3 [SEC=UNCLASSIFIED]

**Attachments:**IWU Construction Monitoring Certification\_20190326.pdf

Regards

[Kim Harris](#)

Kim Harris | Senior Project Officer | Civil Infrastructure & Capital Works Branch

Phone 02 6207 9361 | Fax 02 6207 5564 | Mobile 0466 026 015 | email KimM.Harris@act.gov.au

Infrastructure Finance and Capital Works | Chief Minister, Treasury and Economic Development Directorate | ACT Government

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20 March 2019

File No: 3002581/006/01

Infrastructure Finance Capital Works Chief Minister,  
 Treasury and Economic Development Directorate  
 ACT Government  
 Level 2 Nature Conservation House,  
 186 Emu Bank  
 Belconnen ACT2617

Attention: Mr Nick Taylor

Dear Mr Taylor,

**RE: Construction Monitoring Certification**

This certificate confirms that SMEC Australia has carried out monitoring of the construction of the **Isabella Weir Upgrade Project** in accordance with the following Documents:

- *Isabella Weir Upgrade Regulatory Plan V3 dated*
- *Isabella Weir Upgrade Verification Plan*
- *Isabella Weir Upgrade Verification Matrix*
- *Project Brief, Isabella Weir Design and Construction Monitoring dated 10/06/2014*

SMEC Australia has conducted limited inspections of the construction in accordance with the above documents and has reviewed available quality documentation as indicated in the *Verification Matrix*. All documentation upon which this certificate is based is attached to, and forms part of, the *Verification Matrix*.

SMEC confirms that, based on the information provided to it and its limited inspections of the works, construction of the Isabella Weir Upgrade Project meets the design intent.

A list of drawings to which this certificate applies is attached.

This certification does not relieve any other party of their responsibilities, liabilities or contractual obligations. SMEC has not undertaken day to day surveillance or supervision of construction activities.

Should you require any further information, do not hesitate to contact me on the details below.

Yours faithfully,

Sch 2 2.2(a)(ii)

Team Leader - Bridges and Structures ACT  
 SMEC Australia Pty Ltd



**INDEPENDENT VERIFIER'S CERTIFICATION**

I have reviewed the Contractor's design report and have conducted limited inspections of the works under construction and associated documentation. I confirm that, in my opinion, the construction has been conducted to meet the design intent, given the limited length and number of site inspections available to the Designer.

Sch 2 2.2(a)(ii)

Sch 2 2.2(a)(ii) BE (Hons), FIEAust

**INDEPENDENT VERIFIER**



**Drawing List**

| <b>Document Title</b>                                       | <b>Document No.</b> | <b>Revision Number</b> |
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| CONSTRUCTION SEQUENCE STAGES SHEET 4                        | 3002402-023         | F                      |
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| LEFT ABUTMENT CUT-OFF WALL PLAN AND ELEVATION CONCRETE OUTLINE  | 3002402-117         | J                      |
| RIGHT ABUTMENT CUT-OFF WALL PLAN AND ELEVATION CONCRETE OUTLINE | 3002402-118         | K                      |
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| CUT-OFF WALL SECTIONS AND DETAILS CONCRETE OUTLINE              | 3002402-120         | K                      |
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| ABUTMENT CUT-OFF WALL SECTIONS - SHEET 4                        | 3002402-183         | H                      |
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|   |                     |                        |
| DOWNSTREAM BASIN SCOUR PROTECTION                               | 3002402-190         | G                      |

**From:**"Harris, KimM" <KimM.Harris@act.gov.au>

**Sent:**27/03/2019 10:29 AM

**To:**"Oxborrow, Stuart" <Stuart.Oxborrow@act.gov.au>;"McGrath, Michael" <Michael.McGrath@act.gov.au>

**Cc:**"Taylor, Nick" <Nick.Taylor@act.gov.au>

**Subject:**email 3 of 3 [SEC=UNCLASSIFIED]

**Attachments:**Isabella Weir 2018 - First Fill Inspection report - Final (1).pdf

Apologies for all the emails the system would not allow me to send all in one and the zip file would not attach

Regards

[Kim Harris](#)

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# Isabella Weir

## Dam Safety Inspection Report 2018 (First Filling after 2017/2018 Upgrade Works)

Prepared for:  
Infrastructure Finance and Capital Works (IFCW)

March 2019



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## Appendices

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**Appendix A**      **Inspection Photographs**

**Appendix B**      **Instrumentation Report of ACT Geotechnical Engineering Pty Ltd.**

## 1. Structure description

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### 1.1. General

Isabella Weir was constructed on Tuggeranong Creek in Canberra. The weir impounds Isabella Pond and receives water from Tuggeranong Creek and Upper Stranger Pond by a diversion under Isabella Drive. The primary objective of the weir is to control the quality of stormwater runoff from the surrounding area and provide a recreational facility.

Isabella Weir is a concrete labyrinth spillway structure and consists of the weir itself, the associated left-hand-side (LHS) and right-hand-side (RHS) embankment dams, pond and silt trap structures. Flow from Isabella Weir continues into the storage pond formed by Tuggeranong Weir, which is located approximately one kilometre downstream. A general arrangement for the weir and weir plan are shown in construction drawings, No. 3002402-051-Rev.F, 3002402-102-Rev.K respectively.

The weir upgrade work was completed, and upstream pool re-filled in November 2018.

It is understood that preparation of “Works-as-Executed (WAE)” drawings is in progress. It is recommended that WAE drawings be prepared as soon as possible and reviewed for their completeness and accuracy of information.

It is understood that preparation of “Construction Report” is also in progress. It is recommended that construction report be prepared as soon as possible and reviewed for their completeness and accuracy of information.

### 1.2. Weir

Isabella Weir consists of a near central, 5 cycle concrete labyrinth spillway structure. The spillway is 5.5 m high, has a valley width of 77 m and a labyrinth length of 180 m. The angle between the labyrinth walls is 19 degrees.

The weir was upgraded to pass the 1:10,000 AEP flood event of 1,020 m<sup>3</sup>/s.

Provisions were made for the aeration of the flow nappe include a gravel nib, which is epoxy glued along the crest, and flow splitters on the downstream apex of each labyrinth cycle.

A low-level slot was introduced in the upgraded weir to control the upstream wetland’s water level through segmented stop-boards which permit the pond level to be maintained at EL 574.20 AHD (0.6m below the FSL, i.e., EL 574.80 AHD) during normal operating periods.

The concrete outline and reinforcement details for the original weir are shown in drawing no 3002402-103 to 3002402-121.

### 1.3. Embankment

The adjoining upgraded lengths of embankments are 8 m high and taper over a short length on the right side to the natural surface and on the left side to join the originally constructed embankment. These embankment lengths do not directly retain water except during a flood. The embankments are zoned sections consisting of a clay core (Zone 1), a shell with a gentle slope of 1V:4H (Zone 2) on both sides, with the addition of a 300mm chimney filter (Zone 5A) and a filter blanket (Zones 5A and 5B) on the left side only. An area of riprap was placed on Bidim A 39 geotextile along each shoreline immediately downstream from the spillway concrete to protect the natural creek banks. A zone of coarse material (Zone 5C) was placed on the downstream end area of Zone 5B on the left

abutment where any flow in the under-drainage system would pass into the riprap shoreline protection.

#### **1.4. Outlet Works**

A low-level outlet pipe is provided through the right abutment of the labyrinth. The invert of the intake is at EL 570.68 AHD.

## 2. Weir Data

The key weir data is presented in **Table 2-1** below.

**Table 2-1** : Key Weir Data (Extracted from Isabella Weir Upgrade Final Sketch Plan (FSP) Design Report, SMEC, July 2015 and Consequence Category Assessment, Isabella Weir, GHD, December 2013).

| Component    | Item                          | Details   |
|--------------|-------------------------------|---|
| General      | Location                      | Tuggeranong                                     |
|              | Nearest Town                  | Tuggeranong                                     |
|              | Purpose                       | Water quality control storage                   |
|              | Year of Completion (original) | 1987  |
|              | Year of Completion (Upgrade)  | 2018  |
|              | Consequence Category          | High B  |
| Weir         | Crest length                  | 180 m   |
|              | Spillway Crest Level          | 574.8m AHD                                      |
|              | Height                        | 5.5 m   |
|              | <b>Design Flow;</b>           |   |
|              | 10,000 AEP flood event        | 1,020 m <sup>3</sup> /s                         |
|              | 100 AEP flood event           | 369 m <sup>3</sup> /s                           |
|              | <b>Storm Durations</b>        |   |
|              | PMP 60 min                    | 2,834 m <sup>3</sup> /s                         |
| PMP 90 min   | 3,166 m <sup>3</sup> /s       |   |
| PMP 120 min  | 3,150 m <sup>3</sup> /s       |   |
| PMP 300 min  | 2,232 m <sup>3</sup> /s       |   |
| Embankment   | Type                          | Zoned Embankment                                |
|              | Crest Level                   | EL 578 AHD                                      |
|              | Crest Length                  | 180 m   |
|              | Height (Max.)                 | 8 m   |
| Reservoir    | Full Supply Level (FSL)       | EL 574.8 AHD                                    |
|              | Total Storage Capacity        | 110 ML  |
|              | Total Live Capacity           | N/A   |
| Drain Outlet | Size                          | 450 mm  |
|              | Capacity                      | N/A   |
|              | Regulating valve              | DN450 Ductile iron seat bonneted gate valve     |
|              | Guard or Isolation Valve      | DN450 Aluminum AWMA TFL rising spindle penstock |

### 3. Instrumentation

#### 3.1. Instrumentation Description

The weir is instrumented with a reservoir level gauge (gauge board for manual reading and a sensor for real-time monitoring), standpipe piezometers and survey monitoring points (SMPs). A summary of the instrumentation installed at Isabella Weir is given in **Table 3-1**. The location of standpipe piezometers and survey monitoring points (SMPs) are given in **Figure 1**<sup>1</sup>.

**Table 3-1 : Instrumentation Details**

| Instrument Type                                 | Number of Instruments Installed | Items to be monitored               |
|---|---------------------------------|-------------------------------------|
| Standpipe Piezometers                           | 2                               | Piezometric level                   |
| Reservoir level gauge board and sensor (Note 1) | 1                               | Reservoir level                     |
| Survey Monitoring Points (SMPs)                 | 9                               | Settlement and horizontal movements |

Note 1: Reservoir levels are automatically read by equipment installed by the ALS (Australian Laboratory Services) and managed by their office in Fyshwick, Canberra and readings provided to SMEC.  
 Note 2: There is no rainfall gauge installed at site. Daily rainfalls are provided by ALS (Australian Laboratory Services).



**Figure 1 – Locality Plan of standpipe piezometers, survey monitoring points and pins.**

(Extracted from the report on “Piezometer and Settlement Points – Installation Records” dated 09 October 2018, provided by ACT Geotechnical Engineers Pty Ltd (Ref No MD/C8624)).

<sup>1</sup> Extracted from the report on “Piezometer and Settlement Points – Installation Records” dated 09 October 2018, provided by ACT Geotechnical Engineers Pty Ltd (Ref No MD/C8624).

## 3.2. Instrumentation Data

### 3.2.1. Reservoir Level

Reservoir level is monitored using;

- 1) Gauge Board (for manual readings); and
- 2) Water level sensor (for Automatic readings).

Both the gauge board and water level sensor are installed on the RHS training wall (*Photograph 7*).

The gauge board is read whenever the visual inspections are undertaken, or piezometer readings are taken.

The automatic water level sensor is managed, and readings are downloaded by ALS (Environmental Division). Consideration should be given to forwarding duly checked and verified reservoir level readings on monthly basis to the Dam Safety Consultant (DSC) for interpretation and incorporation into various instrumentation plots and for other purposes.

### 3.2.2. Standpipe piezometers

Installation details of the piezometers and readings taken to date are given in **Table 3-2**. Given that only a limited number of standpipe piezometer readings are available at the time of writing of this report, instrumentation plots are not developed and provided in this report. Once a reasonable number of readings are available, instrumentation plots as required for interpretation will be developed.

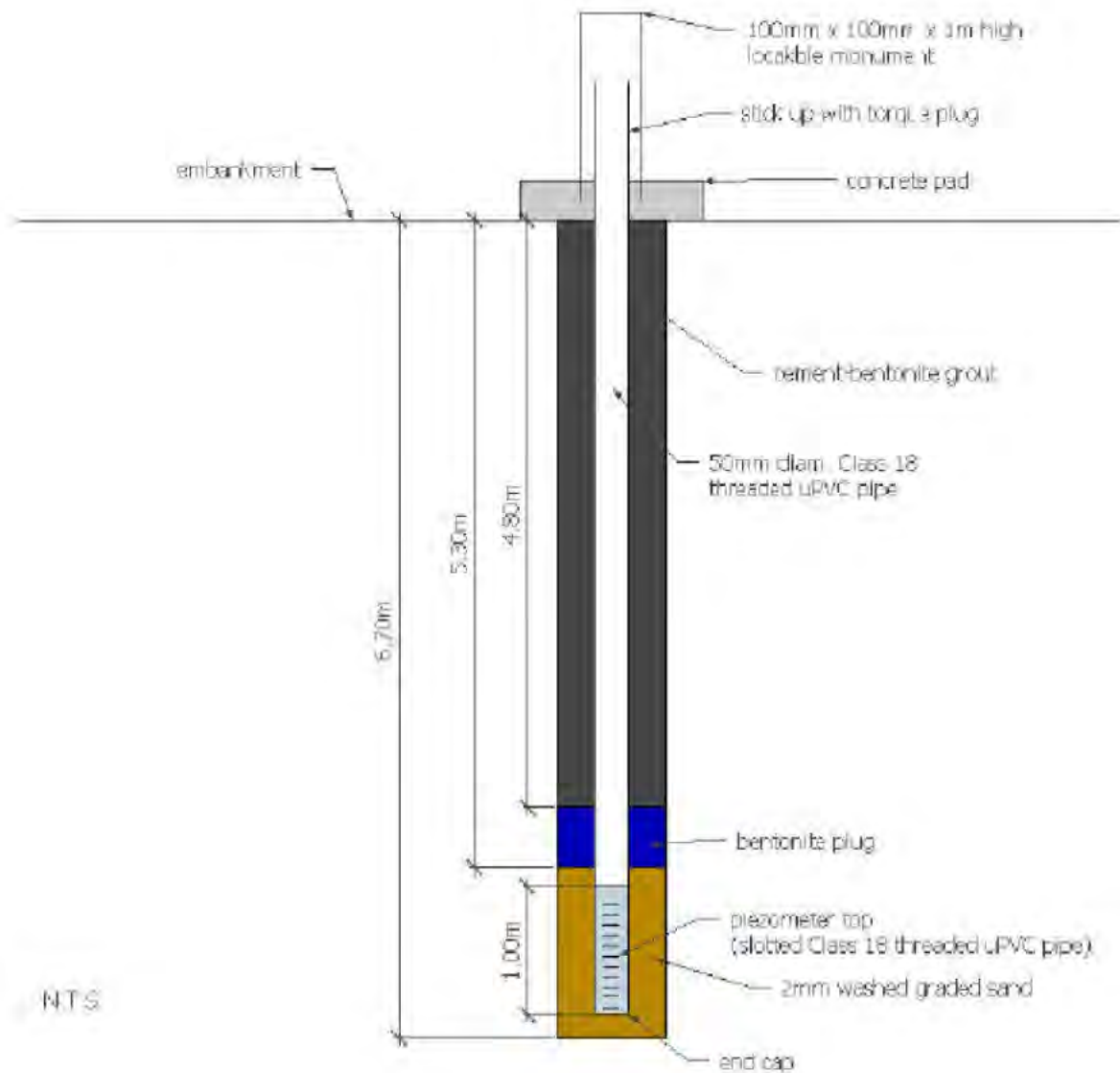
**Table 3-2 : Standpipe Piezometer readings taken to date**

| Date | Reservoir Level in AHD (Below FSL) | Standpipe Piezometer (Note 1)   |                         |   |                         |        |
|------|------------------------------------|---|-------------------------|---|-------------------------|--------|
|      |                                    | IW-PEI-001<br>RHS Embankment<br>(Top of Casing = 578.637 (AHD)<br>(Tip EL = See Note 3) |                         | IW-PEI-002<br>LHS Embankment<br>(Top of casing = 578.760 (AHD)<br>(Tip EL = See Note 3) |                         |        |
|      |                                    | Depth (m)<br>(Note 2)   | Piezometric Level (AHD) | Depth (m)<br>(Note 2)   | Piezometric Level (AHD) |        |
| 1    | 09 / 10 / 2018                     | 571.00 (3.8m)   | 6.03                    | 572.61  | 7.33 (Dry)              | 571.43 |
| 2    | 10 / 10 / 2018                     | 573.00 (1.80m)  | 5.57                    | 573.07  | 7.33 (Dry)              | 571.43 |
| 3    | 15 / 10 / 2018                     | 570.50 (4.30m)  | 6.11                    | 572.53  | 7.33 (Dry)              | 571.43 |
| 4    | 22 / 10 / 2018                     | 570.50 (4.30m)  | 5.73                    | 572.91  | 7.33 (Dry)              | 571.43 |
| 5    | 29 / 10 / 2018                     | 570.50 (4.30m)  | 6.12                    | 572.52  | 7.33 (Dry)              | 571.43 |
| 6    | 08 / 11 / 2018                     | 574.64 (0.16m)  | 4.93                    | 572.71  | 7.33 (Dry)              | 571.43 |
| 7    | 20 / 11 / 2018                     | 574.64 (0.16m)  | 6.25                    | 572.39  | 7.33 (Dry)              | 571.43 |

Note 1 – Location of standpipe piezometers are shown in *Figure 1*.

Note 2 – Depth measurements are taken from top of the casing.

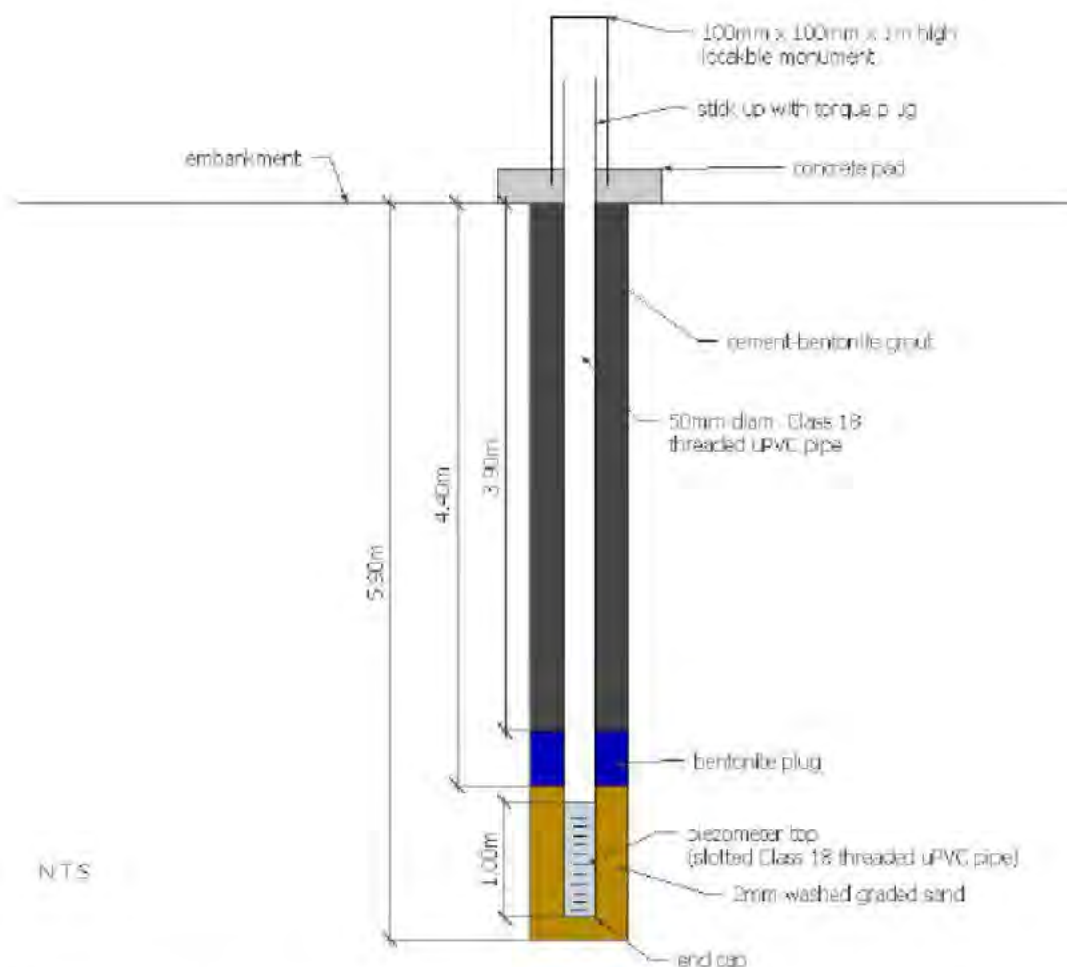
Note 3 – Tip elevations, material zone where the piezometer tip is located, and cross sections showing location of piezometers are not given in the report on “Isabella Weir Instrumentation, Piezometer and Settlement Points Installation Report” dated 09 October 2018 (Ref No MD/C8624). These are vital information required for interpretation piezometer readings. Therefore, the Contractor should be requested to provide this information.



**Figure 2** : Installation details of the standpipe Piezometer No. IW-PEI-001 installed in the left embankment dam (Not to Scale)<sup>2</sup>.

<sup>2</sup> Extracted from the report on "Piezometer and Settlement Points – Installation Records" dated 09 October 2018, provided by ACT Geotechnical Engineers Pty Ltd (Ref No MD/C8624).





**Figure 3** : Installation details of the standpipe Piezometer No. IW-PEI-001 installed in the left embankment dam (Not to scale)<sup>3</sup>.

<sup>3</sup> Extracted from the report on "Piezometer and Settlement Points – Installation Records" dated 09 October 2018, provided by ACT Geotechnical Engineers Pty Ltd (Ref No MD/C8624).

### 3.2.3. Surface Settlements

For the purpose of monitoring surface settlement, nine survey monitoring points (SMPs) are installed on the structure, at the locations shown on **Figure 1** and presented in **Table 3-3**. The initial reduced levels and coordinates of the SMP survey are presented in a *Piezometers and Settlement Points Installation Records* report which is attached in Appendix B.

**Table 3-3 : Installation Details of Survey Monitoring Points (SMPs)<sup>4</sup>**

| Survey Monitoring Point No.   |   | Coordinates |             | Reduced Level |
|---|---|-------------|-------------|---------------|
|   |   | Easting     | Northing    |               |
| <b>LHS Embankment (North Embankment)</b>  |   |             |             |               |
| IW – DSP - 001  | Survey monitoring point installed in the embankment.  | 205,937.546 | 588,215.722 | 577.963       |
| IW – SP - 001   |   | 205,946.585 | 588,208.833 | 578.192       |
| IW – SP - 002   |   | 205,954.486 | 588,195.773 | 578.165       |
| IW – SS - 001   | Stainless steel pin embedded installed concrete wall.   | 205,970.314 | 588,189.629 | 579.321       |
| IW – SS - 002   |   | 205,965.387 | 588,182.175 | 579.315       |
| <b>RHS Embankment (South Embankment)</b>  |   |             |             |               |
| IW – SP - 003   | Survey monitoring point installed in the embankment.  | 206,011.119 | 588,124.247 | 578.177       |
| IW – SP - 004   |   | 206,019.683 | 588,113.480 | 578.201       |
| IW – SS - 003   | Stainless steel pin embedded installed concrete wall.   | 206,001.717 | 588,138.161 | 579.314       |
| IW – SS - 004   |   | 206,010.145 | 588,140.929 | 579.308       |
| <b>Bench Marks (BM)</b>   |   |             |             |               |
| Not provided  | Locations (coordinates of BMs are not provided. Locations and construction details of BMs should be provided. |             |             |               |
| Note 1 – Location of survey monitoring points and pins are shown in <i>Figure 1</i> . |   |             |             |               |

<sup>4</sup> Extracted from Table 2 of the report on "Piezometer and Settlement Points – Installation Records" dated 09 October 2018, provided by ACT Geotechnical Engineers Pty Ltd (Ref No MD/C8624).

## 4. Inspections

### 4.1. Routine Inspections

The first fill occurred on 7<sup>th</sup> November 2018 and a detailed inspection was carried out on 20<sup>th</sup> November 2018 (Table 4-1). Monthly, quarterly and annual inspection programs commenced in December 2018.

Table 4-1 : Details of Routine Inspections

| Date of Inspection   | SMEC Staff members who undertook the inspections |                   |      | Comments   |
|--|--|-------------------|------|--|
|  | Sch 2 2.2(a)(ii)                                 |                   |      |  |
|  | (DSE) <sup>5</sup>                               | (SO) <sup>6</sup> | (ME) |  |
| 7 November 2018  | -  | Yes               |      | Report issued  |
| 8 November 2018  | -  | Yes               |      | Piezometer readings taken                              |
| 13 November 2018   | -  | Yes               |      | Report issued  |
| 20 November 2018 (First Fill Inspection following re-filling of the upstream pool after upgrade works) | Yes  | Yes               | Yes  | Piezometer readings taken and included in this report. |

The Surveillance Procedures were revised in November 2018<sup>7</sup>.

### 4.2. Special Inspections

No post-earthquake or other special inspections have been undertaken.

### 4.3. Review of Operational Aspects

Isabella Weir serves primarily as a recreational facility and to intercept urban pollution. It normally operates at FSL, with only a minor role in flood mitigation. The principal ongoing need is the implementation of an effective dam safety surveillance program. With an open labyrinth spillway, trash will generally pass over the weir without hindrance, but may require occasional manual removal of floating debris following flood events.

Given the limited capacity of the outlet facilities (450 mm pipe), rapid drawdown of the upstream pool to alleviate an emergency situation is not an option, hence the risk of inducing instability or subsidence of the upstream shoreline is low. In any emergency, the frequency of visual inspections should be increased in consultation with the Dam Safety Consultant.

<sup>5</sup> DSE (Dam Safety Engineer).

<sup>6</sup> SO (Surveillance Officer).

<sup>7</sup> Territorial Dams – Surveillance Procedures (November 2018, SMEC).

#### 4.4. Review of Maintenance Activities

The inspection and maintenance activities recommended in the 2018 Maintenance Plan are listed in *Table 4-2*.

*Table 4-2 : Summary of Inspection and Maintenance Works recommended*

| Item                                       | Recommended Inspection and maintenance works      | Frequency |
|--|---|-----------|
| Low level outlet valve and penstock valve. | Exercise by minimum of 10%.                       | 6 months  |
|  | Inspect for leakage through gland and gaskets.    |           |
|  | Adjust or repair, if necessary.                   |           |
|  | Lubricate / re-grease the valves nuts and screws. | 12 months |
|  | Inspect exterior paintwork.                       |           |
|  | Inspect for exterior corrosion.                   |           |
|  | Repair, if necessary.                             |           |
|  | Inspect valve body for any damage.                | 5 Years   |
|  | Repair, if necessary.                             |           |
|  | Exercise fully if possible.                       |           |
| Repair, if necessary.                      |   |           |

## 4.5. First Fill Dam Safety Inspection

### 4.5.1. General

The First Fill inspection was conducted on 20 November 2018. The inspection team comprised:

| Name             | Title  | Affiliation   |
|------------------|--|---------------|
| Sch 2 2.2(a)(ii) | Technical Principal – Dam Safety                 | SMEC          |
|                  | Senior Structural Engineer / Dam Safety Engineer | SMEC          |
|                  | Senior Mechanical Engineer                       | SMEC          |
| Nick Taylor      | Senior Project Officer (Part-time)               | IFCW          |
| Leigh Crocker    | Contract Engineer (Part-time)                    | IP&D (CMTEDD) |
| Sch 2 2.2(a)(ii) | Senior Engineer (Part-time)                      | LRI           |
|                  | PAP (Part-time)                                  | PES           |
|                  | Contractor's Representative (Part-time)          | Guideline     |

### 4.5.2. Operational Status at Time of Inspection

|                                       |                                      |
|---------------------------------------|--------------------------------------|
| Reservoir Level (Gauge Board)         | 574.60 m AHD ( <i>Photograph 7</i> ) |
| Storage Volume                        | N/A                                  |
| Weir Release                          | Minor flow                           |
| Weather Conditions:                   | Clear sky / Warm temperature / Calm  |
| Rainfall on the day of the inspection | Nil                                  |
| Rainfall during the past 24-hrs       | Nil                                  |

### 4.5.3. Inspection Comments

Observations made during the inspection are presented below. Details of any issues identified during the inspection are included in the appropriate action item lists in Section 6. Photographs taken during the inspection provide a useful record of the visual condition of the dam on the day of inspection, and these are presented in Appendix B of this report.

|   |                 |  |
|---|-----------------|--|
| Job safety assessment (JSA) and briefing session                |                 | Undertaken prior to the inspection (Photograph 1).   |
| Upstream pool   |                 | The upstream pool was relatively steady, except for minor ripples due to wind action (Photograph 2 <b>Error! Reference source not found.</b> ). There was no evidence of “whirlpools” or eddies.<br><br>Overall in good condition.   |
| Downstream pool   |                 | Has been lowered on the day of the inspection to facilitate inspection of the downstream apron and downstream face of the walls of the labyrinth weir (Photograph 3, Photograph 4 and Photograph 5).   |
| Shoreline of the upstream pool immediately upstream of the weir | RHS             | In good condition with no evidence of subsidence / settlement, slips or instability (Photograph 6).  |
|   | LHS             | In good condition with no evidence of subsidence / settlement, slips or instability.   |
| LHS Embankment Section  | Upstream face   | There was no evidence of depressions, settlements, subsidence or cracking.<br><br>Bituminous mulch has been sprayed. Once established, the condition of the grass cover should be assessed.  |
|   | Crest           | Good crest capping material with no evidence of breakdown or disintegration (Photograph 35).<br><br>There was no evidence of settlement, depressions, low spots, sinkholes, wheel rutting or cracking.<br><br>Overall in good condition.   |
|   | Downstream face | There was no evidence of depressions, settlements or cracking (Photograph 35).<br><br>Seeding has been completed. Once the grass cover is established, the condition of the grass, including the existence of bare patches should be assessed.   |
| LHS Training Walls  |                 | In good condition with no evidence of displacements, tilt, cracking, spalling, AAR or deterioration (Photograph 34).   |
| LHS abutment wall   |                 | In good condition with no evidence of displacements, tilt, cracking, spalling, AAR or deterioration (Photograph 31 and Photograph 32).<br><br>The repair works undertaken during the construction stage were viewed at a distance using a zoom camera and found to be in good condition (Photograph 32). |

|   |               |   |
|---|---------------|---|
| LHS Wing wall                               |               | In good condition with no evidence of displacements, tilt, cracking, spalling, AAR or deterioration ( <i>Photograph 31</i> ).   |
| LHS batter downstream of the weir           |               | In good condition with no evidence of slope instability.<br>Rip-rap protection was in good condition with no evidence of breakdown or deterioration.  |
| Labyrinth Weir Bay 1 <sup>8</sup> (LHS end) |               | Several minor defects and cracks were present in new concrete walls of the Labyrinth weir ( <i>Photograph 28 to Photograph 30</i> ).<br>The condition of the floor was good.  |
| Labyrinth Weir Bay 2                        |               | Several minor defects and cracks were present in new concrete walls of the Labyrinth weir where minor leakage was present ( <i>Photograph 24 to Photograph 27</i> ).<br>Condition of the old wall was good with no evidence of defects.<br>A sustained leakage was evident through a defect of the vertical joint between LHS and RHS walls ( <i>Photograph 25 and Photograph 26</i> ).<br>The condition of the floor was good. |
| Labyrinth Weir Bay 3                        |               | Several minor defects and cracks were present in old concrete walls of the Labyrinth weir where minor leakage was present ( <i>Photograph 23</i> ).<br>The condition of the floor was good.   |
| Labyrinth Weir Bay 4                        |               | Several minor defects and cracks were present in new concrete walls of the Labyrinth weir where a sustained leakage was evident through a defect ( <i>Photograph 22</i> ).<br>The condition of the floor was good.  |
| Labyrinth Weir Bay 5 (RHS end)              |               | Several defects and cracks were present in new concrete walls of the Labyrinth weir where minor leakage with brown colour stains was present ( <i>Photograph 16 to Photograph 21</i> ). Minor leakage was evident at the vertical joint between LHS and RHS Labyrinth walls ( <i>Photograph 17</i> ).<br>The condition of the floor was good.   |
| Labyrinth Weir Bays 1 to 5                  | General       | The condition of the Labyrinth weir is generally good. However, there are defects are reported above.<br>Consideration should be given to seeking a method statement from the Contractor for repair of those defects.<br>There was no evidence of AAR in concrete walls.  |
| RHS Embankment Section                      | Upstream face | There was no evidence of depressions, settlements, subsidence or cracking ( <i>Photograph 6</i> ).<br>Seeding has been completed. Once the grass cover is established, the condition of the grass, including the existence of bare patches should be assessed.  |

<sup>8</sup> Bay Nos, 1 to 5, are assigned from LHS to RHS.