



Central Coast Council

Enforceable Undertaking Progress Report 5

Forresters Creek Water Pollution Incident 2019

Environmental Reporting Section
June 2021





Enforceable Undertaking Progress Report 5

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Background

Pollution Incident and Enforceable Undertaking Summary

- A water pollution incident occurred in January 2019 as a result of a break in a sewer rising main at 893 The Entrance Road, Wamberal, NSW 2260. This impacted Forresters Creek, a tributary of Wamberal Lagoon.
- After locating the main break, Central Coast Council (CCC) undertook actions to isolate the rising main and fix it immediately. In response to the overflow, Council liaised with the NSW Environment Protection Authority and undertook the following clean-up actions:
 - Damming off the affected areas of the creek
 - Pumping contaminated creek water back into the sewer network
 - Mechanical aeration of the creek
 - Flushing with clean water

Throughout the clean-up, Council undertook water quality sampling and kept the community informed of the situation via door knocks, media releases, public health warning signage and social media notifications.

- Central Coast Council holds Environmental Protection Licence No. 1802 for the management of the reticulated sewer network associated with Kincumber Sewage Treatment Plant. This licence is regulated by the NSW Environment Protection Authority.
- In response to the incident, Central Coast Council and the NSW Environment Protection Authority entered into an Enforceable Undertaking on 15 Jan 2020 pursuant to Section 253A of the *Protection of the Environment Operations Act 1997*.
- Enforceable undertakings are a voluntary and legally binding agreement between the Environment Protection Authority and a party (in this case, Council) alleged to have breached the *Protection of the Environment Operations Act 1997*. The agreement includes commitments by Council, in response to an alleged breach, that are designed to achieved improved environmental outcomes. The Enforceable Undertaking process is often used as an alternative to prosecution in the Land and Environment Court, as it diverts legal costs towards fit-for-purpose environmental projects.
- Further information on Enforceable Undertakings is available on the EPA's website: www.epa.nsw.gov.au
- Any enquiries to Council can be directed to ask@centralcoast.nsw.gov.au

Scope of Progress Report 4

- To date, CCC has submitted the following progress reports to the EPA:
 - Progress Report 1 – 31 March 2020
 - Progress Report 2 – 30 June 2020
 - Progress Report 3 – 30 September 2020
 - Progress Report 4 – 30 March 2021
 - Progress Report 5 – 30 June 2021
- This fifth progress report is primarily regarding the Gross Pollutant Trap project, the SCADA Alarm Upgrades as well as the requirement to provide regular updates as per:
 - **Item 42:** CCC will also report to the EPA in writing in accordance with the milestones of the GPT Project as referred to in clause 42 and set out in Annexure A at Stages 1 to 4 of the project “Overview” and under the sub-heading “Reporting”.
 - **Item 43:** Every 3 months until completion, CCC will report to the EPA on the progress outcomes of this project against the project milestones detailed within the project plan at Annexure A
 - **Item 44:** CCC will provide regular updates to the NSW EPA on the progress of the project.
 - **Item 47:** CCC undertakes to complete a further review and refinement of the alarm settings for the SPSs that have had software upgrades to determine the suitability of this technology for SPS’s by June 2021, with the results of the review to be provided to the EPA and to the public, via CCC’s website.
 - **Item 49:** CCC undertakes to report in writing to the EPA at six-monthly intervals from the signing of this undertaking on progress with respect to the SCADA upgrade program, including the upgrades of the hardware to the remaining 10% of SPS’s in the LGA. Reporting is to continue until the SCADA upgrade program is completed.
 - **Item 63:** CCC will make its reports to the EPA available on its website and will include a link to the reports in its Annual Reports for the relevant reporting year.
- Where updates are available for other actions, they will also be provided within this progress report. Actions are be grouped into 5 categories:

Category	Name	EU Items
1	Gross Pollutant Trap (GPT) Project	Items 40-45
2	SCADA Alarm Upgrades	Items 47-49
3	Replacement of Sewer Rising Main	Items 50-53
4	Pressure Main Criticality Analysis Project	Items 54,57,59
5	Administrative	Items 64-66

Comments on the Progress of the Enforceable Undertaking as a Whole

Council is on track to meet the milestones of the Enforceable Undertaking. Payment of the legal and administrative costs has occurred, and funds have been planned for each undertaking.

Roles and responsibilities for each undertaking have been clearly communicated to each stakeholder and milestones are being monitored and reviewed on a regular basis.

Many of the undertakings have been completed or are well underway and on track to meet the required timeframes.

1. Gross Pollutant Trap (GPT) Project

40: CCC undertakes to provide \$100,000 to upgrade the existing gross pollutant trap (GPT) along Wairakei Road, Wamberal, NSW and to properly and efficiently maintain the GPT on an ongoing basis.

CCC has now completed construction of the gross pollutant trap (GPT) along Wairakei Road, Wamberal, NSW. Costs of this project have now been receipted with total quantities of monies spent equalling \$175,000. Council is committed to properly and efficiently maintaining the GPT on an ongoing basis.

41: The GPT will incorporate a graduated trash rack that will treat the 25-hectare catchment.

The GPT has been designed to treat a catchment area of 31-hectares.

42: Design of the proposed GPT will be completed by 30 June 2020, with installation completed by 30 June 2021.

- **Council engaged *Optimal Stormwater*, a specialised contractor, to design the GPT.**
- **A site survey was undertaken by the contractor on 27/02/2020.**
- **Hydraulic calculations and an options assessment for the GPT design were prepared by the contractor and received by Council on 19/03/2020.**
- **Geotechnical investigations were completed on 28/05/2020.**
- **The detailed design and cost estimate were provided to Council on 15/06/2020.**
- **Construction commenced in February 2021.**
- **Trash rack installation and site rehabilitation completed on 30/06/2021.**
- **GPT service start date 30/06/2021.**

43: *Every 3 months until completion, CCC will report to the EPA on the progress outcomes of this project against the project milestones detailed within the project plan at Annexure A.*

CCC provided an email update to the EPA advertising all is on track and construction has commenced on GPT dated 19 February 2021. The fifth progress report serves as the final required reporting update for this project.

44: *Further details of the project are at Annexure A:*

CCC will provide regular updates to the NSW EPA on the progress of the project. Written advice of progress will be provided to the EPA at the following stages:

- Initial project conception meeting*
- Completion of designs*
- Commencement of on-ground works*
- Completion of on-ground works*
- As otherwise requested by the EPA.*

- The project conception meeting with Council and the contractor occurred on 19 November 2019.**
- The detailed design and cost estimate were provided to Council on 15 June 2020.**
- Projected handed over to CCC Roads and Drainage Construction on 19 November 2020.**
- CCC commenced construction 8 February 2021 and notified to the EPA in an email dated 19 February 2021.**
- Completion of on ground works 30 June 2021.**

45: *CCC shall install visible signage in the vicinity of the GPT stating that upgrade works to the GPT have been required by the EPA as part of the Enforceable Undertaking. The signage shall remain installed during construction of the GPT and for the first 12 months thereafter.*

Visible signage has been installed advertising EPA requirement.

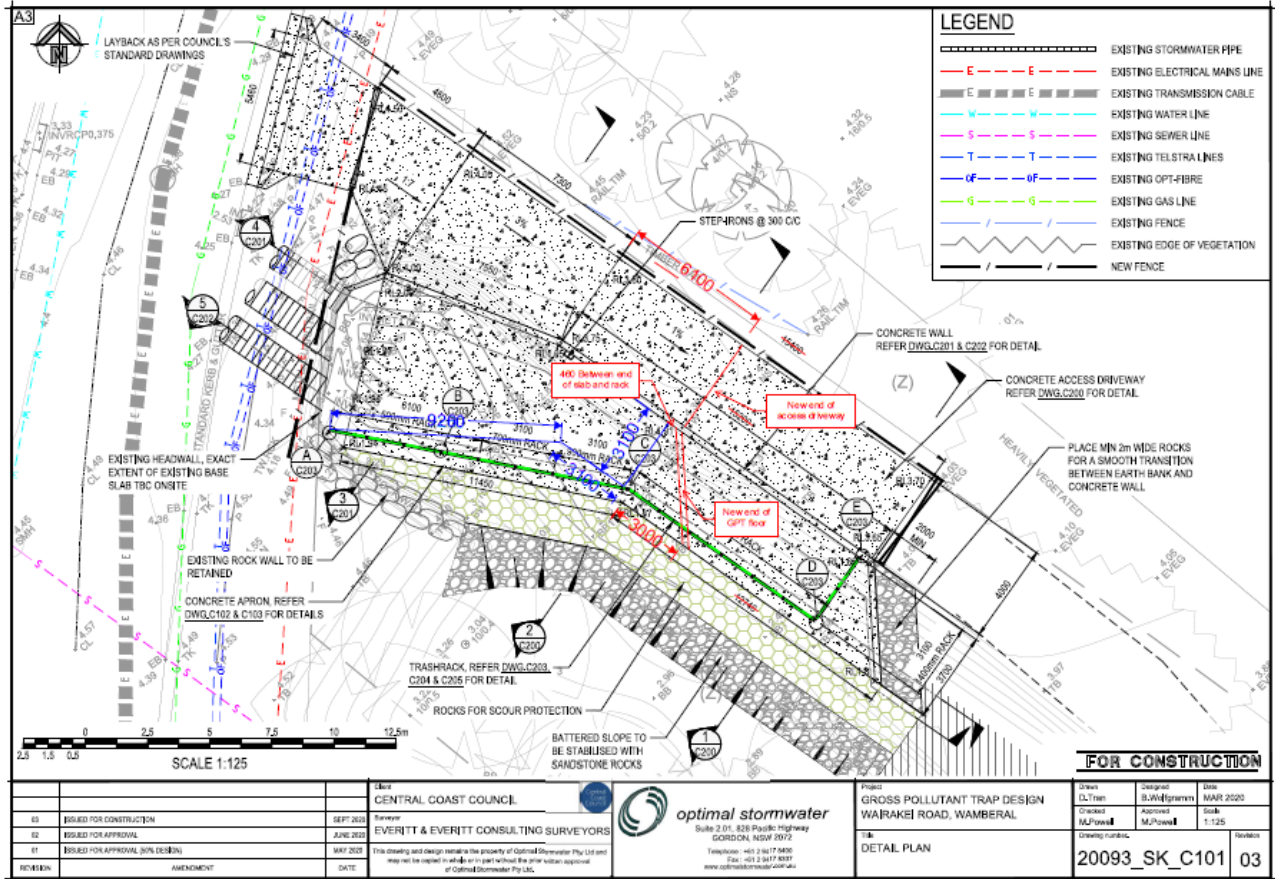
Figure 1: Installed Signage on Wairakei Road, Wamberal



Figure 3: Completed GPT at Wairakei Road, Wamberal



Figure 2: Updated Plans for Gross Pollutant Trap to Treat 31 hectares



SCADA Alarm Upgrades

47: CCC undertakes to complete a further review and refinement of the alarm settings for the SPSs that have had software upgrades to determine the suitability of this technology for the SPS's by June 2021, with the results of the review to be provided to the EPA and to the public, via CCC's website.

CCC has produced a technical paper reviewing assessment outcomes of the SPS diurnal tracking hardware and its suitability and best use as a system tool in detecting potential network faults. This paper has been provided to the EPA as an attachment to the Forresters Beach Enforceable Undertaking Progress Report 5. It is also available for public view via CCC's website.

48: CCC undertakes to complete the SCADA programming across the remaining 10% of SPS's in the Local Government Area (LGA) once those SPS's have been upgraded with the necessary hardware such that they are SCADA software upgrade compatible, in accordance with Council's broader SPS upgrade program. CCC commits to completion of the SCADA upgrade program by 31 December 2022.

- **Since the first Enforceable Undertaking progress report there are now 12 remaining SPSs in the LGA that require electrical switchboard upgrades to support the new SCADA upgrades.**
- **Significant civil, mechanical and electrical upgrades to major SPS are currently under construction. Of these project sites, there are three commissioning programs which include:**
 - **Toukley 01 SPS – September 2021**
 - **Toukley 09 SPS – August 2021**
 - **Toukley 19 SPS – October 2021**
- **The balance of the hardware and software upgrades will be ongoing until the end of 2022.**

49: CCC undertakes to report in writing to the EPA at six-monthly intervals from the signing of this undertaking on progress with respect to the SCADA upgrade program, including the upgrades of the hardware to the remaining 10% of SPS's in the LGA. Reporting is to continue until the SCADA upgrade program is completed.

This progress report is provided in line with this Undertaking.

2. Replacement of Sewer Rising Main

50: CCC undertakes to renew the sewer rising main between SPS FB01 and H893 the Entrance Rd Wamberal. Pipe condition assessment at various locations and a soil profile review was completed following the main break. A risk-based approach identified this section of sewer rising main for renewal.

- Council engaged a consultant (GHD) in February 2020 to undertake the concept design phase for the FB01 Sewer Rising Main (SRM) renewal.
- Council received the Options Report in early May 2020 and completed an engineering options workshop with GHD and internal stakeholders on 21 May 2020.
- The Draft Concept Design and associated reports have been completed and are under internal stakeholder review.
- Council engaged a consultant (GHD) to undertake a Review of Environmental Factors with a draft version received February 2021.

51: The renewal is subject to consultation with Transport for NSW (Roads and Maritime Service) (RMS) due to the road widening project proposed along the Central Coast Highway between Wamberal and Bateau Bay, which is likely to have an impact on the sewer main.

- CCC are in consultation with Transport for NSW (TfNSW) regarding this project.
- A Health and Safety in Design Workshop took place on 26/06/2020.
- A meeting to review and align respective draft designs for both utilities and road upgrades took place on 14/03/2021.

52: Within three months of the signing of this Enforceable Undertaking, CCC will:

- Consult with the RMS concerning the road widening project;
 - Report to the EPA on the outcome of that consultation and the impact of the project on the sewer main renewal;
 - Report on the likely scope of works required to accommodate the road widening project of the RMS; and
 - Provide an indicative timeframe for the commencement of those works.
- CCC have an open line of communication with TfNSW in relation to this project.
 - TfNSW are supportive of the renewal of the FB01 SRM. There is a data sharing understanding in place that permits the sharing of existing and future planning, testing and surveying to avoid the duplication of work and ensure the renewal is complimentary to the proposed road widening.
 - The primary consideration for the FB01 SRM renewal in respect to the TfNSW road widening is to obtain agreement between stakeholders on the alignment of the new

SRM. The new main must be constructible, functional and suitable for the existing road, during road widening construction activities and the final road corridor.

- **The estimate for commencement of FB01 SRM construction is mid-2022. TfNSW have indicated they are likely to commence works early 2023.**
- **The project will be handed over to CCC Major Construction the week commencing 6 April 2021.**

53: The indicative cost of the renewal is in excess of \$250,000

- **Funding has been planned for, and is subject to confirmation from, TfNSW regarding the commencement date of the associated works.**
- **Early estimates for the project are \$4 million - \$5million, however this cost reflects the renewal of the entire sewer rising main. As TfNSW may have to relocate the second section of the sewer rising main as part of future road widening, they have asked for the concept design to include this as an option.**
- **Discussions will continue with TfNSW to determine if the renewal is completed in a staged approach or if it will be a single renewal from the Sewer Pump Station to the discharge manhole.**

3. Pressure Main Criticality Analysis Project

54: CCC undertakes to allocate approximately \$80,000 to facilitate implementation of a Pressure Main Criticality Analysis Project.

Council has engaged a consultant (WSP) to facilitate this project for a contract value of \$98,700.

57: The project will be completed no later than 31 December 2020.

- **The Pressure Mains Criticality Project was completed in August 2020. All deliverable received and paid for on 11 September 2020.**
- **The project allowed for a mechanism to update risk of pressure mains over time.**
- **The project provided a framework that assists decisions regarding when and how to intervene during the asset life of pressure pipelines.**
- **It assists in categorising different types of interventions that can be used to manage the risk profile of the pressure pipeline portfolios.**
- **The success of the project has been recognised by industry with a paper being presented on the methods and outcomes at Ozwater '21.**

59: CCC undertakes to share the methodology for the project referred to in paragraph 58 with industry by 29th Feb 2021, via the Water Services Association of Australia and Asbestos Safety and Emission Agency relevant working groups, with a view to leading improvements in pipe risk assessment across industry and reducing pipe failures.

A paper has been authored by a Council staff member titled 'Condition Assessment and Prediction of Remaining Life for Asbestos Cement Pressure Mains'. This was shared with the ASEA on 25/07/2019 and WSAA on 14/09/2020.

Administrative

Item 63: CCC will make its reports to the EPA available on its website and will include a link to the reports in its Annual Reports for the relevant reporting year.

CCC publishes its progress reports, including its Annual Report, on its website. The Annual Report becomes available for public viewing around October.

64: CCC undertakes to pay \$15,000 to the EPA for legal costs incurred by the EPA in the course of its investigation of the incident and for preparing this Enforceable Undertaking.

This was paid on 24/02/2020 – CCC Payment Reference: 1188753

65: CCC undertakes to pay \$1425.60 to the EPA for forensic laboratory costs incurred by the EPA in the course of its investigation of the incident.

This was paid on 24/02/2020 – CCC Payment Reference: 1188753

66: CCC undertakes to pay the EPA, in accordance with the undertakings in clauses 64 and 65, within 60 days of the date of execution of this Enforceable Undertaking by the Chief Executive Officer of the EPA.

The Payments were completed within 60 days.

- **Invoice date: 04/02/2020**
- **Payment date: 24/02/2020**

Appendix A: Reporting Schedule

Progress Reports and/or Milestones Due												
Project	Due Date	31 Mar 2020	30 Jun 2020	30 Sep 2020	18 Dec 2020	31 Mar 2021	30 June 2021	30 Sep 2021	31 Mar 2022	30 Sep 2022	16 Dec 2022	31 Mar 2023
Payment of legal and investigative costs	16/03/2020	✓	-	-	-	-	-	-	-	-	-	-
GPT project	30/06/2021	✓	✓	✓	✓	✓	✓	-	-	-	-	-
SCADA alarm upgrades	31/12/2021	✓	-	✓	-	✓	✓					
Replacement of sewer rising main	-	✓	-	-	-	-	-	-	-	-	-	-
Consultation with TfNSW on SRM replacement	31/03/2020	✓	✓	-	-	-	-	-	-	-	-	-
Pressure main criticality analysis project	31/12/2020	-	✓	-	✓	-	-	-	-	-	-	-
Share results of pressure main criticality project with WSAA	28/02/2021	-	-	-	-	✓	-	-	-	-	-	-
Enforceable Undertaking as a whole	31/12/2022	✓	✓	-	-	-	-	-	-	-	-	
Include links to all reports within CCC's Annual Report for 19/20 & 20/21	30/06/2020	-	✓	-	-	-	✓	-	-		-	-