

Operational Agreement

BETWEEN

Bay of Plenty Regional Council



AND

Rotorua Lakes Council

**ROTORUA
LAKES COUNCIL**
Te Kaunihera o ngā Roto o Rotorua

AND

WorkSafe New Zealand

WORKSAFE
Mahi Haumarū Aotearoa

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Document History

This document has the following revisions:

Version Date	Authors	Reviewers	Approvers	Change Summary
15-12-2025	Penny Doorman Rhys Fenton Jason Laurent	Jason Laurent Nick Dawtry Andrew Austin	Reuben Fraser Corey Sinclair Jean-Paul Gaston	Ver. 2.1 – amended based on changes to consent conditions, drilling operations and geothermal well construction.
02-06-2022	Penny Doorman Rhys Fenton	Jason Laurent Nick Dawtry Peter Brownbridge	Sarah Omundsen Pelin Fantham Geoff Williams	Ver 2.0 – wording clarification and updates following review of practical application of agreement.
19-08-2021	Penny Doorman Rhys Fenton Peter Brownbridge	Jason Laurent Nick Dawtry Kurt Williams	Sarah Omundsen Pelin Fantham Geoff Williams	Initial Operational Agreement

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This Operational Agreement

Between Bay of Plenty Regional Council, Rotorua Lakes Council, and WorkSafe New Zealand

Relates to: Geothermal well construction and maintenance - Rotorua Geothermal System

About this document

1. This Operational Agreement is between Bay of Plenty Regional Council (BOPRC), Rotorua Lakes Council (RLC), and WorkSafe New Zealand (WorkSafe) (the Parties).

Purpose

2. This Operational Agreement seeks to establish a framework for coordination of activities, collaboration, and cooperation between the Parties, particularly in relation to geothermal well construction, maintenance, and abandonment on the Rotorua Geothermal System.
3. This Operational Agreement is intended to:
 - a. ensure co-ordination and collaboration between the Parties
 - b. clarify roles and responsibilities of each Party
 - c. ensuring compliance with relevant geothermal statutory requirements
 - d. support best practice management of geothermal wells, and the prevention or reduction of harm to the health and safety of any person
 - e. support the planning for responses to geothermal bore emergencies, and
 - f. support consistent messaging to the community about geothermal well management.

Background

4. The use of geothermal heat and fluid for direct heat use is of major importance to the regional economy and social and economic well-being of the Rotorua community.
5. There are over 250 geothermal wells in Rotorua. These wells include production, reinjection, and downhole heat exchanger wells. They are used for direct heat such as space and water heating and bathing. Their safe construction and maintenance and abandonment are necessary to:
 - a. minimise the risk to public safety (e.g. from blow outs or the uncontrolled discharge of hot water and dangerous gas)
 - b. ensure the ability to quickly control wells in the event they fail
 - c. allow testing of wells (e.g. down-hole and flow testing, casing integrity testing) to determine the state of the resource and its use (e.g. metering or down-hole testing) and to determine if the bore is fit for purpose, and
 - d. ensure efficient use of the resource.

Interpretation

6. For the purposes of this agreement, the following terms are defined:
 - a. **Abandonment** describes the correct abandonment of a well according to the relevant code of practice or guidelines. The term does not cover all wells that are no longer in use.
 - b. **BOPRC** means Bay of Plenty Regional Council.
 - c. The **Bylaw** means the Geothermal Safety Bylaw 2016.

- d. The **Code** means the Standard NZS 2403: Code of Practice for Deep Geothermal Wells (wells 150m or deeper) and/or NZS 2402P: Provisional Code of Practice for Geothermal Heating Systems in Rotorua.
- e. **DOWN** mean details of work notice.
- f. **GIS** means Geographical Information Systems.
- g. The **Guidelines** means the Shallow Geothermal Well Systems Good Practice Guidelines.
- h. **HSWA** means the Health and Safety at Work Act 2015.
- i. The **LGA** means the Local Government Acts 1974 and 2002
- j. **Parties** means the signatories to this Operational Agreement.
- k. **PCBU** means person conducting a business or undertaking.
- l. **RLC** means Rotorua Lakes Council
- m. **SQEP** means a person suitably qualified and experienced to carry out works for the construction of new wells. Under the Geothermal Energy Regulations 1961 (the Regulations) a SQEP is, in the case of:
 - i. drilling: a person with a geothermal drilling qualification and a Grade A or B Bore Manager, as defined by the Regulations
 - ii. fitting associated infrastructure, such as headwork: a person with mechanical engineering experience in a geothermal environment and would include (but is not limited to) someone who is a Bore Manager under the Regulations. Regulation 26 of the Regulations requires that all bores and pipework shall be designed, constructed, operated, and maintained in accordance with safe, proper, and proficient geothermal engineering practice.
 - iii. designing headworks: a qualified engineer with experience in geothermal applications.
- n. The **Regulations** means the Geothermal Energy Regulations 1961.
- o. The **RMA** means the Resource Management Act 1991.
- p. **Third party** means someone who is not a party to the Operational Agreement.
- q. **Well intervention** means techniques to address the requirements of sustaining long-term operation of geothermal production fields. Well interventions consist of:
 - i. Live-Well Clean Out
 - ii. Well abandonments
 - iii. Stimulation
 - iv. Acidizing
 - v. Fishing operations
 - vi. Well quenching
 - vii. Casing integrity testing
 - viii. Valve changes
 - ix. Air / nitrogen lift
 - x. Casing scraper runs
 - xi. Casing milling, and

- xii. Workover operations, which involve the use of a drilling rig, coiled tubing unit or wireline to carry out the rehabilitation of the well using appropriate engineering methodology.

r. **WorkSafe** means WorkSafe New Zealand

Roles and responsibilities

- 7. The three Parties have specific but overlapping roles and responsibilities under various legislation.
- 8. The Parties meet regularly, at an operational level at least once a year, to share information, build relationships, address any issues, and discuss their roles and responsibilities. These meetings and their outcomes will be recorded to ensure ongoing improvements and consistency.
- 9. The Parties inform well owners of their duties through resource consents, compliance processes, and providing education and information. The Parties also ensure well owners comply with their responsibilities under relevant legislation, including following good practice in well maintenance and engaging SQEPs to carry out all works on wells and associated infrastructure.

General roles in relation to geothermal wells

Bay of Plenty Regional Council

- 10. BOPRC manages the geothermal reservoir, under sections 30 and 14 of the RMA. This includes:
 - a. allocation of geothermal fluid and energy, and managing geothermal discharges to land, air, and water resource consents
 - b. land use consents for drilling of geothermal wells (for a minimum term of 1 year), and
 - c. consents for the taking and discharge of geothermal fluid (a term of up to 10 years in the Rotorua System).
- 11. BOPRC therefore has a role in ensuring:
 - a. Wells (and other infrastructure) are constructed, maintained and abandoned to a minimum standard to avoid uncontrolled discharges of fluid, and
 - b. wellheads are configured to allow down-hole testing necessary to inform BOPRC on the state of the reservoir (e.g. pressure and temperature) and the integrity of the well.
- 12. BOPRC will include consent conditions to ensure that all geothermal wells are constructed, maintained, and abandoned to best practice standards.
- 13. BOPRC imposes and enforces conditions of consent where these relate to the purpose of the consent, and the effects of the use of the resource. Consent conditions only extend to well configuration and maintenance to the extent that this is necessary to manage the reservoir (i.e. control flow or test flow).
- 14. BOPRC does not explicitly have a public safety role in relation to its geothermal consenting functions, but it must fulfil its obligations under HSWA, including ensuring its staff are kept safe and well when assessing wells.

Rotorua Lakes Council

- 15. RLC has a public health and safety role under the LGA. Section 145(b) of the LGA provides a bylaw-making power for territorial authorities, including for the purpose of protecting, promoting, and maintaining public health and safety.
- 16. RLC manages the well infrastructure, to ensure that any bore (whether functioning or not) will not cause injury to any person. This is done through the Bylaw. The purpose of the Bylaw is to protect the general public from the effects of hydrogen sulphide gas and ensure the safe operation and maintenance of the headworks and associated pipework and plant of shallow geothermal production and re-injection bores. The Bylaw only applies to shallow wells in the Rotorua District.

17. RLC has responsibilities under HSWA. RLC's specific knowledge is about geothermal wells, including whether wells are in sound condition and are fit for purpose. RLC also has knowledge of the state in which wells are maintained and the location of both used and disused bores.

WorkSafe

18. WorkSafe is the primary work health and safety regulator whose main objective is to promote and contribute to a balanced framework for securing the health and safety of workers and workplaces.
19. WorkSafe monitors and ensures compliance under a range of legislation including HSWA and the Regulations.
20. Under HSWA, PCBUs have a primary duty of care to manage risks to health and safety associated with their work or workplaces. WorkSafe monitors and enforces compliance with this legislation.
21. HSWA applies to wells insofar as they are at a workplace or work is being carried out on them. This can include wells at workplaces and wells at residential properties.
22. WorkSafe reviews DOWNs and provides consent for all new wells, work overs, interventions, and abandonments under the Regulations.

Roles in relation to well construction

23. The Parties have a range of processes to ensure new wells are designed and constructed appropriately. It is anticipated that works carried out by a SQEP will meet the Guidelines and the requirements of the Regulations. On completion of works any of the Parties may also seek further verification of, or carry out compliance assessments on, the wellhead construction.

Bay of Plenty Regional Council

24. BOPRC requires a land use consent to install a new geothermal well and requires that wells are constructed to best practice standards. This involves ensuring:
 - a. All land use consent conditions refer to the relevant well drilling and maintenance guidelines and codes of practice, and
 - b. a schematic of the well is provided.
25. In instances of higher risk wells, such as in high pressure parts of the system, BOPRC may seek verification that wells are constructed according to the relevant geothermal best practice by an independent expert.
26. BOPRC requires wellheads are appropriately designed through the resource consent process. This includes using a certified wellhead design that meets the Guidelines (and the design shown in Appendix 1), or an alternative design if approved and certified by a qualified Engineer.
27. BOPRC assigns well numbers to newly installed bores when they issue a consent. This is an automated process. The numbers are sequential (eg. for 2020 starting at BN20-XXXX). Any unassigned bores that are entered in the system will take the next number available. The Parties all use these numbers to refer to bores.

Rotorua Lakes Council

28. For new wells, RLC require under the Bylaw that geothermal wells are fit for purpose and consider:
 - a. future access to the well by a drilling rig
 - b. distance from and risk to any RLC or other services and infrastructure (where known)
 - c. the siting of the well in relation to these services
 - d. risks to these services from a drilling operation (e.g. drilling rig parked over services while drilling), and

- e. public safety in relation to the siting of any new well (e.g. proximity to vulnerable facilities such as schools).

WorkSafe

- 29. WorkSafe require DOWNs under the Regulations for all new wells, work overs, and abandonments. WorkSafe reviews relevant information through the DOWNs process to ensure the well is constructed in accordance with the Guidelines and the Codes.
- 30. WorkSafe reviews the DOWNs application to ensure the:
 - a. information provided meets the requirements of the Regulations, and
 - b. proposed controls appropriately mitigate the risks associated with geothermal drilling.

Roles in relation to well audits, maintenance, and interventions

Bay of Plenty Regional Council

- 31. BOPRC require that all geothermal wells with consented takes (even if not currently in use) are maintained to best practice standards as follows:
 - a. consent conditions refer to the relevant guidelines and code of practice, and
 - b. for new take consents for existing wells (i.e. a renewal), the applicant has demonstrated compliance with the relevant guidelines and code of practice before the consent is granted.
- 32. This verification includes confirmation of regular well maintenance including casing integrity testing, and that any well maintenance requirements identified through the compliance process have been implemented or will be implemented within reasonable timeframes.
- 33. BOPRC audits consents on a three-yearly cycle to identify any issues relating to their consent conditions. It will share a list of sites to be audited every year with the other Parties. During the audit process, any issues with a well are identified and an appropriate level of compliance assigned:
 - a. Complying: Site conforming with all consent conditions.
 - b. Low Risk Non-compliance (LRNC): Minor issues either onsite (i.e. slight corrosion patina evident and the like) or flow-temperature records overdue (offsite).
 - c. Moderate Non-compliance (MNC): e.g. Previous LRNC issues unresolved, minor leaks, casing corrosion, or unmaintained valves.
 - d. Significant Non-compliance (SNC): e.g. Previous MNC issues unresolved, major leaks of geothermal gases and or fluid, casing failure, or unconsented use.
- 34. In the event wells are found to be non-compliant, BOPRC may involve RLC and WorkSafe as appropriate (see Appendix 3).
- 35. Three-yearly compliance is considered sufficient by BOPRC to identify any issues relating to their consent conditions

Rotorua Lakes Council

- 36. RLC monitors compliance with the Bylaw, which requires that wells are fit for purpose.
- 37. RLC reviews annual well maintenance reports submitted by well owners to demonstrate compliance with the Bylaw. RLC may discuss this requirement with well owners.
- 38. RLC proactively seeks compliance with the Bylaw when an issue is brought to their attention via an inspection, a public complaint, through BOPRC compliance inspections, or by WorkSafe (see Appendix 2).
- 39. RLC carries out regular compliance checks to assess the safety of identified wells that are considered higher risk.
- 40. The Parties will jointly identify potentially high-risk wells and maintain and regularly update a register of these.

WorkSafe

41. WorkSafe reviews DOWNs, which are submitted by well owners to WorkSafe, consents any well interventions before the commencement of operations to drill. This is primarily to ensure the works will be done according to the Guidelines and safe drilling practices.
42. The DOWNs process does not amount to a maintenance audit.

Roles in relation to well abandonment

43. Wells are abandoned if they fail, if the well owner no longer requires the fluid and energy, or if the well owner does not renew a consent to take and can no longer legally use the well (ie. an unconsented take). There are correct procedures for the abandonment identified in the Guidelines and in the Bylaw.

Bay of Plenty Regional Council

44. BOPRC requires safe decommissioning and abandonment of wells as a condition of consent.
45. BOPRC notifies well owners six months prior to a consent expiring of the need to renew the consent or cease the take. If well owners do not apply to renew the consent, BOPRC sends a notice to abandon the well according to the Guidelines, or to keep the well in a working condition as per the Guidelines.

Rotorua Lakes Council

46. RLC monitors compliance with the Bylaw, which requires that wells are abandoned as best practice.
47. If wells are not abandoned when they are no longer in use, RLC enforces the Bylaw and requires that the wells are maintained or abandoned as per the Guidelines as this is primarily a health and safety issue.

WorkSafe

48. WorkSafe provides consent to well owners to abandon a bore before the commencement of operations. This is primarily to ensure the work will be done and completed according to the Guidelines and safe practices for the abandonment of a bore.

Roles in relation to unused wells without current resource consent

49. There are over 1000 old unused wells in Rotorua. Some of these were abandoned according to best practice, but many are historical and have not been grouted or had the wellheads decommissioned. Risks around unused wells relate largely to blow outs or gas leakage.
50. RLC is the lead agency in addressing issues with unused wells.
51. BOPRC and RLC have developed a GIS layer of historical wells. This GIS layer is separate from BOPRC's GIS layer of operational and/or consented wells.
52. This information is being confirmed over time via field checking and updated where possible, through a cloud-based mapping application, including the location and what is known about the well.
53. Regular updates of this information will be made available to WorkSafe, on request.
54. A minimum 5 metre setback of all buildings from operational, unused, or abandoned wells is required by RLC under the Bylaw and Rotorua District Plan.
55. RLC includes known information about unused wells on Land Information Memoranda (LIMs).

Emergency management

56. In the event of a blow out of an operational, unused, or abandoned well, RLC will:
 - a. be the lead agency (of the Parties) and will be the first point of contact in an emergency, and
 - b. inform BOPRC and, if the well is associated with work or a workplace, WorkSafe.

- c. BOPRC will provide advice and support to RLC to the extent necessary to manage discharges to the environment.
- d. RLC will develop inhouse processes to manage emergency discharges (e.g. to stormwater or surface water), including notification of appropriate teams and iwi, and coordination of media releases where necessary. They will also advise BOPRC of any emergency discharges via the BOPRC Pollution Hotline.
- e. If the well is associated with a workplace, WorkSafe will consent any emergency well intervention under the Regulations

Information management

57. Subject to legal requirements, the Parties may share information to allow more efficient collaborating between the Parties. For example:
- a. BOPRC may provide RLC copies of the land use consent application for drilling (with well construction schematics and specifications) for comment.
 - b. BOPRC may provide RLC and WorkSafe copies of drilling consent and well construction schematics and specifications.
 - c. WorkSafe may provide copies of DOWNs, as submitted to them by the Bore Manager, to BOPRC and RLC.
58. The Parties will work together to centralise and update data (e.g. well design verification, DOWNs, maintenance records etc.) on geothermal wells, including through the New Zealand wells database.

Communications

59. Each Party is responsible for statements to the media relating to their own functions. However, for efficiency, the following broad principles are agreed:
- a. RLC is generally the lead agency in relation to:
 - i. media responses for emergency situations such as well blow outs and casing failures, and
 - ii. issues with wells where these pose an immediate public safety risk.
 - b. RLC communications staff will inform BOPRC communications staff about key messages and timeframes of media releases to ensure a united response.
 - c. BOPRC is the lead agency in response to enquiries about resource consents or enquiries about unconsented takes.
 - d. WorkSafe is the lead agency relating to the Regulations and any issues relating to HSWA.
60. If one Party receives a request for information in respect of this agreement or any activity undertaken pursuant to it, they will inform and, where possible, consult, the other Parties regarding the response. The Party that receives the request will meet its legal obligations and consider, where possible, the other Parties' views, before responding to the request.

Education and publicity

61. The Parties will work together to ensure consistent and regular public messaging on well construction, maintenance and abandonment, and the responsibility of well owners. This may include:
- a) working together to develop joint education material (e.g. factsheets, video)
 - b) seeking input from the other Parties into any material being developed that may impact geothermal well construction, maintenance, or abandonment,
 - c) updating well design drawings to reflect best practice (e.g. design, materials, geology, casing depth etc)

- d) Holding a joint annual workshop on well construction, maintenance and abandonment with the community
- e) Holding regular joint meetings with industry providers; and
- f) Jointly responding to any issues raised by interest groups.

Dispute resolution

- 62. If minor disputes arise about the interpretation or performance of this Operational Agreement, local representatives or managers of the Parties will attempt to resolve the dispute as soon as possible.
- 63. If disputes cannot be resolved locally, or they are significant, they will be referred to the General Manager Regulatory Services at BOPRC, Group Manager Operations at RLC, and General Manager, Operations, at WorkSafe.
- 64. If disputes cannot be resolved within 28 days of referral, the matter will be referred, in writing, to the Chief Executive at BOPRC, Chief Executive at RLC, and Chief Executive of WorkSafe for final resolution.
- 65. Any disputes arising under this Operational Agreement will be resolved through discussion and cooperation and won't be referred to any external organisation in any circumstance.

Status of operational agreement

- 66. Unless expressly stated otherwise, the following applies to this Operational Agreement:
 - a. The Operational Agreement will continue to be in effect until it is either terminated or superseded.
 - b. A review of the Operational Agreement can be requested at any time, by any Party.
 - c. Amendments to this Operational Agreement will be made in writing by mutual agreement of all Parties.
 - d. The Operational Agreement can be terminated at any time and by any Party, through written notification. Termination will be effective immediately.
 - e. There is no intention for this Operational Agreement to create any legal rights, duties, or obligations, and this Operational Agreement is not binding on the Parties.
 - f. Nothing in this Operational Agreement will create, constitute, or evidence any partnership, joint venture, agency, trust, or employer/employee relationship between the Parties.

This Operational Agreement is made on 15 December 2025

Signed by



Reuben Fraser
Group Manager
Regulatory Services
Bay of Plenty Regional Council



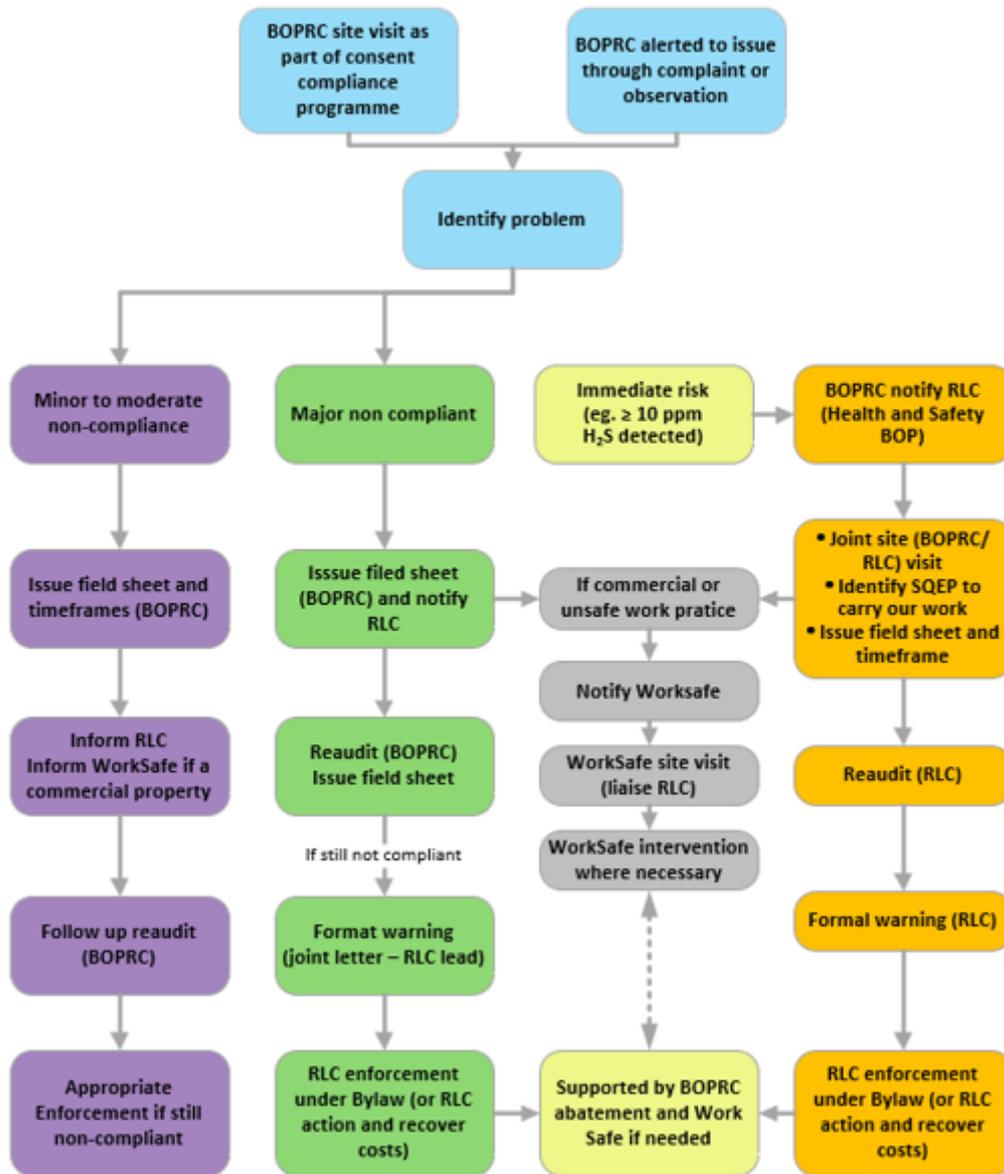
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Appendix 1

BOPRC Three-Yearly Well Maintenance Compliance Process



Appendix 2

Process to address well maintenance issues

