



Notice of Requirement – Okato Bores (NPDC-116 and NPDC-117)

New Plymouth District Council gives notice of its requirement for the following designations for a public work (or in respect of any land, water, subsoil, or airspace where a restriction is necessary for the safe or efficient functioning or operation of a public work) under **Sections 168A, 181(4)** and **Form 20** of the Resource Management Act 1991.

New designations	Yes
Lapsed designations requiring a new designation	N/A

1. Introduction

The proposed new designations relate to two sites containing water sources for potential community water supplies. The sites are not currently designated under the Operative District Plan.

The Requiring Authority for the designations is the New Plymouth District Council (the Council) and the designated purpose is 'Water treatment borehole'.

2. The sites to which the requirement applies are as follows:

Reference	Site Name	Location	Legal Description
NPDC-116	Okato Water Treatment Borehole 1	Oxford Road, Okato	Section 1 SO 499384
NPDC-117	Okato Water Treatment Borehole 2	Oxford Road, Okato	Section 2 SO 499384

3. The nature of the proposed work is:

The Council seeks to designate the land which presently contains existing bores that may be utilised in future as an alternative / supplementary water supply for the community of Okato.

The designation of the sites is for the purpose of:

- Providing better visibility of these existing assets in the District Plan.
- Providing a clear 'approvals' process for any asset maintenance / upgrade / development works on the designated sites as opposed to requiring resource consent (if required).

Background

The Council has carried out drilling investigations into the feasibility of groundwater to supplement or replace the existing surface water supply for the community of Okato.



In 2015 two production bores were constructed adjacent to the Water Treatment Plant on Oxford Road. These were referred to as Bore A (Bore 1) and Bore B (Bore 2). Resource consent was obtained from the Taranaki Regional Council for the installation of the bores (9957-1) and taking of groundwater for aquifer testing (9960-1).

Table 1 below communicates the bore details and exact locations. Figure 1 below visually demonstrates the two bore locations. Both bores draw from a volcanic aquifer approximately 50m deep, which is described as a semi-confined, leaky aquifer. The maximum combined capacity of both bores has been assessed from testing to be 864 m³/day (10 L/s).

For each of the bores, bore casing joints were welded and the casing was installed with a full annular cement grout. The bores were completed with 200mm casing and 150mm diameter screens. Bore A (Bore 1) is screened from 42 to 48 mBGL and Bore B (Bore 2) from 48 to 57 mBGL.

Bore ID	Type	TRC registration number	Location NZTM		Ground elevation mASL
			North	East	
1 (A)	Production bore	GND2466	5659360	1677728	149.91
2 (B)	Production bore	GND2467	5659281	1677810	152.63

Table 1 – Bore location details



Figure 1 – Aerial photo demonstrating location of existing bores

Bore 1 – Designation reference NPDC-116

Bore 1 is located within Section 1 SO 499384 and has a capacity of 440m³/ day. The bore has not yet been commissioned due to water quality issues. Water testing has found fungicide present. Water quality issues would need to be resolved in order to use bore 1 as a supplementary water supply for the Okato community. An alternative option which would require further



investigation would be to utilise this water source for river recharge of the Mangatete Stream. Water quality issues would need to be addressed to ensure this option does not impact adversely on the Mangatete Stream including aquatic life.

Bore 2 – Designation reference NPDC-117

Bore 2 is located to the south-east of bore 1 and has a capacity of 440m³/ day. No water quality issues have been detected during testing. While it draws from the same aquifer as bore 1, it is suspected that the groundwater received at bore 1 has a different path to that received at bore 2 and may not be directly connected.

While the capacity of bore 2 is not sufficient to meet current peak demands for the Okato community as a standalone water source, there is the potential for it to be used as a primary source of water during low demand periods or supplementary supply during peak demand times when the surface water take from the Mangatete Stream is reduced due to low water quality or low stream flows.

Proposed works

Works required within the designation boundaries to utilise the bores would be relatively small in scale and would include installation of pumps, riser pipes and electrical control equipment. The bore heads would include backflow prevention and flow metering. Electrical equipment would be installed inside a stainless-steel cabinet close to the bore heads or at the water treatment plant (depending on pump power and cable sizing limitations).

In addition to the above it would be necessary to construct pipework from the bore heads along the edge of Oxford Road to the Okato water treatment plant where the water would be treated by the existing treatment process (cartridge filtration and UV disinfection) before entering the existing treated water reservoir for distribution. It is likely this pipework would be contained within the legal road reserve.

4. The nature of the proposed conditions that would apply is:

No conditions are deemed necessary given the nature of the designations.

5. The effects that the public work will have on the environment, and the ways in which any adverse effects will be mitigated, are:

The sites to which the proposed designations relate are located within the Rural Environment Area in the Operative District Plan (See Figure 2 below). The sites are also within the H3 (Volcanic Hazard) Overlay. This includes an area of the district identified as most likely to be affected by a future eruption of Mount Taranaki.

The proposed designations encompass two allotments. Section 1 SO 499384 has an area of 1000m³ while Section 2 SO 499384 has an area of 940m².



Figure 2: Operative District Plan Map F2

Visual Effects

The sites front Oxford Road however the presence of the bores does not impact adversely on the rural character or amenity of the site or surrounding area. Infrastructure required for abstraction of water from the bores is small in scale and would not impact adversely on the visual amenity of the surrounding rural environment.

The designations are for the purpose of providing for the long-term protection of existing bores to provide for an alternative or supplementary community supply to service the community of Okato.



Figure 3: NPDC-116 (bore 1) and NPDC-117 (bore 2) proposed designation boundaries



Noise

The sites are located within the Rural Environment within the Operative District Plan. The existing bores are not currently in use and do not generate noise beyond the boundary of the sites. Should the bores be utilised in the future as a supplementary or alternative source of community water supply, a bore pump would be installed on the site. This would not generate unreasonable noise effects beyond the boundary of the proposed designated site. Any noise generated would achieve compliance with the requirements of the Operative District Plan.

Traffic and Parking

Access to the bores is gained directly from Oxford Road. As the bores are not being utilised at present, there are currently no regular vehicle movements accessing the site.

Should the bores be utilised, the minimum requirement is to visit each bore once a month for the purpose of confirming security and taking water quality samples. Technicians currently visit the Okato water treatment plant three times a week and it is likely that visits to the bores will occur at the same time. Given the close proximity to the water treatment plant and provision of parking at the plant, technicians would park at the water treatment plant and walk to the bore sites. Should the bores be in use, vehicle movements to the site would not increase and the proposed designation would not result in adverse effects on traffic safety or the roading network.

District Plan Objectives and Policies

The proposal will not be inconsistent with the National, NZ Coastal, Regional Policy Statements, Proposed Regional Policy Statements, District Plan or Proposed District Plan.

The following objectives and policies of the Operative District Plan are considered of relevance in regard to the proposed designations:

Character and Amenity

- *Objective 1: To ensure activities do not adversely affect the environmental and amenity values of areas within the district or adversely affect existing activities.*
- *Policy 1.1: Activities should be located in areas where their effects are compatible with the character of the area.*
- *Policy 1.2: Activities within an area should not have adverse effects that diminish the amenity of neighbouring areas, having regard to the character of the receiving environment and cumulative effects.*

Network Utilities

- *Objective 3: To ensure public works and network utilities do not adversely affect the health and safety of the community.*
- *Policy 3.1: The establishment, operation, maintenance and upgrading of public works and network utilities should not compromise public health or safety.*



As outlined above, the proposed designations relate to sites containing existing bores. The designations will not result in adverse effects on the character or amenity of the surrounding area. Given this, compliance with objective 1 and policies 1.1 and 1.2 will be achieved.

Designation of the sites would provide for the formal protection of the Okato water bores and associated infrastructure and will not result in adverse effects on the health and safety or the community in line with objective 3 and policy 3.1 of the District Plan. The protection of these existing assets through designation will provide additional options for a reliable and sustainable supply of fresh water for residents of Okato in the long term.

6. Alternative sites, routes, and methods have been considered to the following extent:

The requiring authority is required to consider alternative sites, routes or methods where the requiring authority does not have an interest in land sufficient for undertaking the work. Both allotments SO 499384 and SO 499384 are owned by the New Plymouth District Council. For this reason, an assessment of alternatives is not considered necessary.

7. The public work and designation (or alteration) are reasonably necessary for achieving the objectives of the territorial authority because:

Consideration must be given as to whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought.

The public work is required in order for the New Plymouth District Council to meet its obligations under the Local Government Act (LGA 2002) in relation to the promotion of community wellbeing. In addition, the LGA 2002 specifies the Council's obligations and restrictions relating to the provision of water services. The bores provide possible alternative/supplementary sources of water for community use and will assist the Council in meeting its obligations under the Local Government Act.

The 2018-2028 Long Term Plan for the New Plymouth District identifies the key priority in managing infrastructure as looking after the infrastructure assets the Council currently owns. The designations will provide for the long-term protection of the existing assets and will be in line with the Long Term Plan for New Plymouth District Council.

For the following reasons it was considered appropriate to pursue designations for the existing bore infrastructure:

- Designations will allow land required for the works to be clearly identified in the District Plan, clearly indicating the intended use of the land and;
- Designations will provide a clear 'approvals' process for any asset maintenance / upgrade / development works on the designated sites as opposed to requiring resource consent (if otherwise required).

The designations will serve to safeguard the existing bores as a potential future option for providing a supplementary / alternative water supply for the community of Okato and will assist in meeting the objectives of the Council.



8. The following resource consents are needed for the proposed activity and have been applied for:

The New Plymouth District Council holds the following resource consents in regard to these sites:

- 9957-1 (install bores)
- 9960-1 (take groundwater for aquifer testing)

Resource consent would be required from the Taranaki Regional Council for the taking of groundwater from the bores. This would be applied for separately by the New Plymouth District Council.

9. The following consultation has been undertaken with parties that are likely to be affected:

No parties are considered to be adversely affected by the proposed designations as both allotments on which the bores are located are owned by the Council. The designation of the sites for the purpose of 'Water treatment borehole' will not impact adversely on adjoining properties.

10. The New Plymouth District Council attaches the following information required to be included in this notice by the district plan, regional plan, or any regulations made under the [Resource Management Act 1991](#).

N/A

Authorised by

David Langford (Infrastructure Manager)
on behalf of New Plymouth District Council

Date

02/08/19.

