Response ID ANON-URZ4-5F7N-N

Submitted to Fast-track approval applications
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Submitter details

Is this application for section 2a or 2b?

2A

1 Submitter name

Individual or organisation name:
Marlborough District Council (on behalf of Flaxbourne Community Irrigation)

2 Contact person

Contact person name:
Anna Bensemann

3 What is your job title

Job title:
Senior Planner, Baseline Group Marlborough

4 What is your contact email address?

Email:
s 9(2)(a)

5 What is your phone number?

Phone number:
s 9(2)(a)

6 What is your postal address?

Postal address:

PO Box 950
Blenheim 7240

7 Is your address for service different from your postal address?

No

Organisation:

Contact person:

Phone number:

Email address:

Job title:

Please enter your service address:

Section 1: Project location

Site address or location

Add the address or describe the location:

North bank of the Waimā (Ure) River, areas immediately upstream (“eastern borefield”) and downstream (“western borefield”) of the State Highway 1 and rail bridges.

Legal Descriptions:

Crown-owned:
• Riverbed areas - Crown owned land (LINZ)
• Crown Land BLK X (under action) CAPE CAMPBELL SD
(area to west of rail bridge, south side of Ure Road adjoining
riverbed)
• SEC 1 SO 2422 (marginal strip east of SH1 – Crown land
reserved from sale)

Privately owned:
• Lot 2 DP 597959 (Owner s 9(2)(b)(ii)
Title ref: 1158819

File upload:
Site plans 2024.pdf was uploaded

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Do you have a current copy of the relevant Record(s) of Title?

Yes

upload file:
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Who are the registered legal land owner(s)?

Please write your answer here:

Toitu te Whenua Land information NZ land - Riverbed areas
NZTA/Waka Kotahi Road reserve
s 9(2)(b)(ii) private land

Detail the nature of the applicant's legal interest (if any) in the land on which the project will occur

Please write your answer here:

The proposal covers three key areas of land:
1)Toitu te Whenua Land information NZ land - riverbed within the Waima (Ure) River bed. Although an easement is not in place initial conversation had commenced prior to the project being paused (resource consent withdrawal). The intention is that MDC will prepare a Deed of Grant of Easement based on a LINZ template. Once the works have been completed then the actual easement will be surveyed, and a Deed of easement executed
2) Land contained between State Highway 1, and the Main North railway line is owned/administered by NZTA/Waka Kotahi and Kiwirail and statute s52 of the Government Roading Powers Act (GRPA) permits utility operators and territorial authorities to install services in state highway reserves subject to application and necessary conditions.
3) Land owned by s 9(2)(b)(ii) Land was previously owned by s 9(2)(a) and s 9(2)(a) , with which there was an agreement for easement and licence to support the development within their land. This land has since been subdivided and sold to s 9(2)(b)(ii) . An agreement for a formal legal easement is being sought from this new land owner.

Section 2: Project details

What is the project name?

Please write your answer here:
Flaxbourne Community Irrigation Scheme

What is the project summary?

Please write your answer here:

This proposal is for the take groundwater of up to 330.9 L/s from the lower gravel aquifer under the north bank of Waima (Ure) River using a borefield comprising five production wells (two existing and three to be drilled). This is to be used to irrigate 1,252.5 ha of farmland located between the Waima (Ure) River and Lake Grassmere/Kapara Te Hau on the South Island East Coast, and supply Ward Township with a reliable water supply.

What are the project details?

Please write your answer here:

The Flaxbourne area is located in a very dry part of the country in Eastern Marlborough. The town of Seddon lies 20 km north and the provincial centre of Blenheim 50 km north. The population of the area was 312 in 2018. While the area continues to rely heavily on sheep and beef farming as the predominant land use, there have been important diversifications of land uses and there are multiple activities in the local economy. Economic activity includes viticulture, the salt works, and tourist activity along the route of SH1. Commercial fishing off Ward beach provides a number of jobs and there is

a fish processing factory in the village.

Within the area lies the township of Ward, which had a population of 81 in 2018. The township provides a number of services to the local area and also passing traffic and visitors. Other services and businesses in the town include a service station and café/bar, a motel, church, the Ward Primary School, which is an important community hub, and the community hall, which is another centre for community connection.

Irrigation should enhance the economic and social wellbeing of the people and community of Flaxbourne as it will cause significant land use change in the project area. Expansion of viticulture and increased resilience of farming enterprises through diversification of land uses will bring additional employment and people to the district, with flow on benefits to services and other businesses. Enhanced resilience of farming systems should help to build the resilience and social capital of the area.

There is no existing irrigation scheme serving the Flaxbourne catchment and, to date, irrigation in the catchment has been ad hoc and limited to individual farmers building small scale storage to capture winter surface flows from their own catchment area for use during the summer irrigation season. The lack of infrastructure has restricted the extent of land development able to be achieved, with on-farm small storage dams struggling to achieve the economic returns to make them viable. The purpose of the proposed irrigation scheme is to provide a reliable water source to support large scale irrigation of 1,252.5 ha of farmland within the Flaxbourne catchment.

The proposal involves the use of five bores (two established and three proposed) located east and west of the SH1 bridge and Main North Line Rail bridge over the Waima (Ure) River. Water from these bores will be pumped into a small storage tank located on Signal Hill, located within private property, and then will be provided on demand to farmers to the north.

The proposed scheme requires a take of up to 260.9 L/s at peak flow rates during summer months. This includes a take of up to 10.4 L/s to provide Ward Township with a reliable community water supply that, following treatment, could meet drinking water standards (unlike the current supply). A further maximum 70 L/s is proposed to be taken and discharged into a tributary of the Waima (Ure) River as river augmentation is required. This results in a total potential take of 330.9 L/s water taken.

The proposal includes a groundwater take and borefield construction and installation, including the installation of supporting pumping, piping and electrical infrastructure, and a connecting pipeline and header tank to be located near the Single Hill summit (just below the Lulworth Windfarm turbines).

The proposal specifically includes the following activities:
To take and use up to 330.9 L/s of groundwater from a borefield comprising five production wells on the north bank of the Waimā (Ure) River in the vicinity of the SH1 and rail bridges for the purposes of irrigation of the Flaxbourne catchment during summer months, community water supply for Ward, and occasional river surface flow augmentation purposes (water permit);
To drill up to 3 new production wells (in addition to the existing two production wells drilled for testing) and construct/install the associated pumping, piping and cabling infrastructure, a small electrical building, a pipeline to Single Hill and a water tank near the summit of Single Hill. This includes associated land disturbance activities (including excavation/trenching)(land use consent);
To discharge water to the unnamed stream to the west of the rail corridor (being a side tributary of the Waimā (Ure) River) and then into the Waimā (Ure) River for surface flow augmentation purposes as required during times of peak take (discharge permit); and
To extract gravel from part of the bed of the Waimā (Ure) River for the purpose of creating an artificial channel to avoid any potential effects of the groundwater take on surface water flows during periods of low flow (land use consent).

Conservative modelling undertaken as part of the groundwater assessments shows the primary impact of the take would be an increase in the number of dry river days during the summer periods, where there will be no surface flow in the vicinity of the SH1 Bridge (as compared to predicted natural conditions where the River frequently dries but not every year), from a typical four months of the year (December to February) to upward of six months (October to March). Use of an adaptive management framework (monitoring, gravel excavation works and augmented river flows) to mitigate this effect. An additional 70 L/s is require to occasional augment (recharge) surface flows in the lower reach of Waima (Ure) River near the SH 1 bridge. Infrastructure associated with piping water to the use locations is also required, but at this stage has not been designed or consents sought.

Participating landowners in the use of the water are already signed up to a targeted rating scheme by MDC, to eventually fund the scheme. Costs of s 9(2)(b)(ii) s 9(2)(b)(ii) have been incurred since 2008 which will be part of the rating recovery. It is estimated that this scheme would roughly be in the order of s 9(2)(b)(ii) s 9(2)(b)(ii) if constructed today.

Describe the staging of the project, including the nature and timing of the staging

Please write your answer here:

The project has been partly through a resource consenting process (MDC's resource consent reference U200349) which was lodged in 2020 and was withdrawn in May 2023.

Once approved, the project has funding in place and can progress as soon as final legal easement over private land previously secured and the property has since been sold with easements not transferred. Contractors lead in time is likely to be around 6 - 8 months from approval, with construction to be a further 13 months.

This will provide for the installation of bores, and the header tank on Single Hill, and the associated network of pipe infrastructure to each farm.

What are the details of the regime under which approval is being sought?

Please write your answer here:

Resource Management Act - Resource consent
Section 9 restrictions on use of land, Section 13 restriction on certain uses of beds of lakes and rivers, Section 14 restrictions relating to water.

Proposed Marlborough Environment Plan (PMEP) (unitary plan) required under section 30 and 31 RMA:

Ground water take and use - Discretionary activities under rules 2.5.2 (take) and 5.2.3 (use).
Rule 2.6.1 prohibits the take and use of water where it would cause the water quantity allocation limit for the relevant Freshwater Management Unit to be exceeded. There is dispute if this provision is triggered.

Activities in, on, under or over the beds of lakes and rivers - structures associated with the bore field are considered as a discretionary activity under Rule 2.10.2. This includes the pipe and pump infrastructure and the installation/drilling of bores.

Gravel extraction required to create the artificial river braid/channel for maintaining surface water flow requires consent as a discretionary activity under Rule 2.10.2.

Activities within in Road and Rail Corridors will include drilling under rail and road infrastructure to provide for pipe work which requires consent as a discretionary activity under Rule 2.23.2.

Rural zone
1) Excavation within 8 m of a river will require resource consent as a discretionary activity under Rule 3.6.1.
2) Clearance of indigenous vegetation for the new pipeline both on the west of SH1 and through the private land to the Single hill summit. This requires resource consent as a discretionary activity under Rule 3.6.1.

If you seeking approval under the Resource Management Act, who are the relevant local authorities?

Please write your answer here:

Marlborough District Council

What applications have you already made for approvals on the same or a similar project?

Please write your answer here:

An application for this activity was lodged with Marlborough District Council under resource consent number U200349. This was withdrawn May 2023 due to resource consenting challenges which included the following:
1) Reliance on extensive hydraulic modelling with limited historic rainfall and flow data;
2) The National Freshwater Review (Now National Policy Statement for Freshwater) which placed irrigation lower on the allocation priority order and gave significant weight to iwi views (Te Mana o te Wai).
3) Councils own PMEP developed prior to the hydraulic modelling undertaken as part of scheme investigations. The PMEP did not establish an allocation regime for the Waimau/Ure River. In that case the default MALF applies which does not provide sufficient water for the proposed Flaxbourne Irrigation but which is well below what Council advisors believe is sustainable.

Is approval required for the project by someone other than the applicant?

No

Please explain your answer here:

The site is not subject to any other local authority. In approving the development, land administered by the Crown and NZTA/Waka Kotahi is involved.

If the approval(s) are granted, when do you anticipate construction activities will begin, and be completed?

Please write your answer here:

The detailed design process will take 6 months to complete.
Procurement and awarding contracts will be an additional 2 months.
Funding is already in place through the rating process.
Works can commence on site within 1 month of awarding contracts.
Once works are started it is anticipated they will be complete within 13 months.

Section 3: Consultation

Who are the persons affected by the project?

Please write your answer here:

Relevant Iwi:
Te Rūnanga o Kaikōura (Via Ngai Tahu)
Te Rūnanga a Rangitāne o Wairau.

Relevant Local Authority - Marlborough District Council

Landholders subscribed to be serviced by the Flaxbourne Irrigation Scheme (please refer to rating maps showing those land owners already being rated to be serviced by the scheme).

Owners of Lot 2 DP 597959 s 9(2)(b)(ii) who own Single Hill.

NZTA/Waka Kotahi - and Kiwi Rail

Detail all consultation undertaken with the persons referred to above. Include a statement explaining how engagement has informed the project.

Please write your answer here:

There are two iwi whose takiwā include the site of the proposal, being Ngāi Tahu and Te Rūnanga a Rangitāne o Wairau. Both have been consulted, and Te Rūnanga a Rangitāne o Wairau provided unconditional written approval to the original consent lodged with MDC (which has been provided separately).

Consultation with Ngāi Tahu and the local rūnanga Te Rūnanga o Kaikōura occurred as part of the preparation of the original application to MDC, but did not result in conclusive approval prior to the withdrawal of the consent, leading to an objection to the 2020 notified application.

Consultation with the community has resulted in the specific areas to be serviced by the scheme, and accordingly the overall size of the scheme, and volume of water proposed to be taken. Community engagement and subscription to a targeted rate to support the development of this proposal has resulted in a rating scheme established in the 2015 - 2025 long term plan by Marlborough District Council to fund this development. Attached is a plan showing the subscribed ratepayers.

Formal agreement with the previous owner of the area containing Single Hill (now Lot 2 DP 597959) for rights of access had been achieved, however as this land has since sold, discussions with the new owner are underway.

NZTA/Waka Kotahi and KiwiRail have expressed no concerns with the proposal, as long as their infrastructure is not compromised. Detailed design and methodology will need to be approved by these entities prior to undertaking works to achieve access.

Extensive consultation was also undertaken with Fish and Game, The Department of Conservation and The Royal Forest and Bird Society.

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20180710-Aerial Maps- FCIL Overall Map of rated areas-lvv.pdf was uploaded

Describe any processes already undertaken under the Public Works Act 1981 in relation to the land or any part of the land on which the project will occur:

Please write your answer here:

No Public Works Act processes have been entered into.

Section 4: Iwi authorities and Treaty settlements

What treaty settlements apply to the geographical location of the project?

Please write your answer here:

The Ngai Tahu Settlement Claims Act 1998 is relevant. The principles of this are for Ngai Tahu and the crown to enter an age of co-operation. The Crown apology recognises the Treaty principles of rangatiratanga, active partnership in decision making and active protection.
Within this act Schedule 100 provides for the Statutory acknowledgement for Te Tai o Marokura (Kaikōura Coastal Marine Area), which holds a strong association for Ngai Tahu given the frequency of which the coastline was traversed.
Schedule 95 of this Act identifies 1 ha of land within the Waima (Ure) River for Nohoanga Entitlement (the temporary occupation of an area for non-commercial food gathering). This specific area is located at the mouth of the Waima River east of the SH1 bridge, and on the southern side of the riverbank. The headworks of the proposal are further upstream and on the northern bank.
This is a large , open and flat area surrounded by low shrubbery. Figure 21 of the original resource consent application (a copy of which is provided as part of this application), identifies the area of this Nohoanga. There are no facilities at the Nohoanga site, and land to the south is used as a storage space for shingle and other materials for road repairs.

The Ngāti Apa ki te Rā Tō, Ngāti Kuia, and Rangitāne o Wairau Claims Settlement Act 2014 is also of relevance as it sets out the Rangitane o Wairau Area of interest, which covers a territory stretching from the Waiau-toa (Clarence) River and continuing northwards past the application site. Section 15 of this Act acknowledges the failings of the Crown its dealings with Rangitane o Wairau, and includes in Section 16 an apology for these failings, and sets out the Crown looks forward to re-establishing its relationship with Rangitāne based on mutual Trust, co-operation, and respect for the Treaty of Waitangi and its principles. Written approval was provided to the original application for resource consent after consultation on this project, given Rangitane' s interest.

Are there any Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019 principles or provisions that are relevant to the project?

No

If yes, what are they?:

Are there any identified parcels of Māori land within the project area, marae, and identified wāhi tapu?

No

If yes, what are they?:

Is the project proposed on any land returned under a Treaty settlement or any identified Māori land described in the ineligibility criteria?

No

Has the applicant has secured the relevant landowners' consent?

Yes

Is the project proposed in any customary marine title area, protected customary rights area, or aquaculture settlement area declared under s 12 of the Māori Commercial Aquaculture Claims Settlement Act 2004 or identified within an individual iwi settlement?

No

If yes, what are they?:

Has there been an assessment of any effects of the activity on the exercise of a protected customary right?

No

If yes, please explain:

Upload your assessment if necessary:
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Section 5: Adverse effects

What are the anticipated and known adverse effects of the project on the environment?

Please describe:

The proposal includes a range of potential effects which are detailed at length in the original application and supporting further information provided as part of the resource consent apparition to MDC under U200349. This proposal varies in location slightly from the original consent as a result of the submissions made. The key change is the location of above ground infrastructure associated with the borefield now being located on the western side of the Kiwirail bridge in road reserve area, and not on the eastern side of SH1. The associated pipe infrastructure originally proposed to extend through land on eastern side of SH 1 up to Single Hill, is now proposed to be located between SH1 and the main north rail line for approx. 830 m then divert under the SH1 to Single Hill. Therefore, the assessments provided in the original application need to be considered in this context.

A summary of potential effects is provided:

Temporary Construction effects:

Works will include:
Excavation and installation of a small chamber at each of the five well points to house the connection from the well pump to the pipeline;
Trenching for the pipelines and electrical cabling, with trenches being approximately 1m deep, although depth may vary at specific crossing points including with roads, rail and streams;
Minor concrete works for installing the pump chambers and for foundations to support the electrical building (if required);
Building platform creation for the electrical building and water tank.

The effect of these works will include traffic, vehicle access, noise and dust associated with the construction of the necessary infrastructure to support the development. The duration of this will be limited to the period required to install the infrastructure, and will be undertaken outside of bird breading seasons for known nesting birds.

The original application included a range of mitigating measures listed as potential conditions of consent which mitigate potential effects arising from construction, such as refuelling outside of the riverbed, and making sure machinery is cleaned of vegetation prior to entering the site.

Measures to minimise sediment generation during works, including avoiding retaining excavated material within the riverbed, undertaking works within the riverbed in a manner to minimise contact with flowing water. An ecologist is required to supervise the construction works of any new stream channel creation to ensuring it is constructed with a natural like finish.

The works for the installation of bores and associated infrastructure will largely be undertaken within the riverbed west of the Main North Railway. The railway formation largely screens the primary construction site from visibility from SH1, ensuring visual effects during construction are largely avoided. There will be some minor disruption to views during installation of the pipe work alongside SH1, however this is consistent with any large infrastructure

project and will occur for a relatively short duration. Once complete the works will not be visible.

Unlike the original application, the now proposed location of works are located well over 100 m away from wetlands at the mouth of the River and so construction works will have no effect on these.

Neighbourhood/community effects:

The primary adverse effects of the proposal on the local neighbourhood and community will be the visual and physical effects of the proposal including vegetation clearance and earthworks (which will be most visible during site preparation and construction), the annual riverbed disturbance during the gravel extraction/artificial braided channel creation, as well as the effects of the take on surface water flow during periods of peak groundwater take in summer months increasing the length of time the River runs “dry”.

There are three elevated rural land dwellings located on Waimā Hills Station approximately 500m to the south-west of the SH1 Road Bridge (across the other side of the Waimā (Ure) River) which may obtain long distance glimpse views of the wider river corridor in the vicinity of the SH1 road bridge and railway line.

The adverse visual and physical effects from the proposal are considered low to very low, as any such effects will be localised, with ground conditions and vegetation cover re-established following construction, and the activities generally being consistent with existing rural land management currently established across the area. There may be opportunities to see gravel extraction machinery and equipment in the Riverbed from the three dwellings located over 500m away in the Waimā Hills: however, any such views will be over long distances and are considered to generate very low adverse effects. A landscape report provided as part of the original consent confirms these effects will be acceptable.

Freshwater resources:

Effects on the freshwater resources was raised as the primary effect of concern during the processing of the consent, with extensive modelling undertaken and then further information provided by GHD. The reports and further information reports to support the following assessment have been provided as part of the whole application.

The GHD report identifies there have been very few bores drilled in the Waimā Valley. However, drawing from available bore logs provided by Council, the geology of the lower Waimā Valley can be divided into four main layers as follows:
• a shallow gravel,
• a finer grained layer with silt, clay and claybound gravels,
• a lower gravel layer, and
• the underlying mudstone (papa).

The proposal seeks to take water from the lower gravel level.

As identified by GHD, the abstraction of groundwater can result in the following potential effects:
• Cumulative effects on the Aquifer;
• Drawdown effects on existing users affecting their reliability of supply;
• Effects on surface water flows;
• Effects on side tributary and natural wetlands;
• Effects on the saline/freshwater interface; and
• Cumulative effects of the abstraction on the water balance.

Monitoring and testing of the groundwater resource by GHD indicates that the target aquifer is semi-confined, with leakage through the semi-confining layer from the shallow gravel aquifer. There is a high degree of connection between the Waimā (Ure) River and the shallow gravel aquifer; therefore, the groundwater abstraction has the potential to affect surface flows in the Waimā (Ure) River.

The modelling assessment shows:
•A reduction in groundwater head in the vicinity in the SH1 Bridge. The magnitude of drawdown has been estimated to be 0.6 m at maximum abstraction rates. Depending on river flow conditions, this may result in the River going dry earlier than would occur naturally, and for a longer period than would otherwise occur;
•Modelled groundwater drawdown from 65% of maximum abstraction rates, representing a long term average, is less at around 0.35m; and
•The spatial extent of the effects on surface flow have been approximated to be within 400m of the SH1 bridge, noting the conservative assessment approach and the sensitivity of the modelling to bed elevations and flows.

Cumulative effects on Aquifer (allocation):
Cumulative abstraction of groundwater has the potential to cause a decline in groundwater levels where the total volume of water exceeds the natural inputs (recharge to the system).

The main concern relating to cumulative effects is the potential for long-term decline in groundwater level and for the groundwater in the aquifer to be depleted by more than what the aquifer can sustainably maintain (that is, where the volume extracted exceeds the natural recharge). While this proposed abstraction will occur alongside existing takes, the modelling undertaken by GHD demonstrates that the combined abstractions are expected to make up only 30% of the volume of water recharged into the aquifer annually. No long-term decline in the groundwater level is therefore anticipated.

Mitigation measures to ensure there is no cumulative effect include ongoing monitoring of water levels down stream of the site, and salinity probes to measure potential saltwater intrusion. Additional flow monitoring upstream, and photographic record of flows at the SH1 bridge area would ensure

adaptive management to low flow effects can be more accurately established. Regular monitoring (decreasing over time) to ensure there are no significant effects is proposed. These measures are set out in the GHD reports.

Annual volumes limits and to cease abstraction when flows reach set levels, or if particular salinity is reached in a monitoring bore is also proposed to ensure significant effects are appropriately avoided.

Effects on other water resource users:

The GHD report concludes that both the analytical and numerical assessments show that the potential interference effects on the upstream well (Buick) are negligible at most, even during periods of maximum abstraction and no flow in the lower River. The interference effects on the nearest upstream well (Rudd) are predicted to be between 0.1 m and 0.4 m. In comparison to the available drawdown in this well, this effect is considered to be less than minor.

However, to provide the neighbouring well-owners certainty, the following conditions of consent are proposed:

The exercise of this consent must not cause a more than minor adverse effect to consented water takes from wells P29w/0141 (Rudd) or P29w/0079 (Buick). Should the exercise of this consent in the first five years of operation be demonstrated to cause a more than minor adverse effect to either of the wells, the Consent Holder must compensate for or address this effect in one of the following ways:
(a)Provide equivalent water supply to the well owner(s) affected; or
(b)Make any necessary alterations to the affected well and associated infrastructure to address the effect; or
(c)Cease abstracting at a trigger level that ensures the more than minor effect is not caused; or
(d)Any other means as agreed between the well owner and the Consent Holder.

All costs associated with implementing (a)-(d) shall be borne on the Consent Holder.
Advice note: For the purposes of this condition, “more than minor” means an effect that would cause the user of the well to be unable to reasonably exercise their authorised abstraction to its full extent.

Effects on surface water flows:

The investigations, modelling and analysis undertaken by GHD for the proposal indicate the proposed groundwater take is likely to have adverse effects on surface water flows in the Waimā (Ure) River without the implementation of recommended mitigation and management measures.
As detailed in the GHD report, the shallow gravel aquifer is in direct hydraulic connection with surface flows in the Waimā (Ure) River. Abstraction from the lower aquifer is therefore expected to cause stream flow depletion due to the leaky nature of the semi-confining layer between the low aquifer and the shallow gravel aquifer. This has been confirmed by the numerical modelling which indicates an increase in dry river conditions during ‘dry' summer periods at the SH1 Bridge. However, it is noted that the highly conservative nature of the groundwater model (the model incorporates a number of conservative assumptions to address the lack of historical flow data in the Waimā River) means that the drying effect is likely to be overestimated by the model.

The analytical and numerical assessments of the effects on surface water flows in the Waimā (Ure) River from the groundwater take were undertaken by GHD are detailed in Section 5 of their report. Both assessments indicate that increased drying in the lower Waimā (Ure) River (at the SH1 Bridge) is likely from the abstraction of groundwater from the lower aquifer.

The GHD report states that the potential drawdown effects on the shallow aquifer and the River will reduce with distance from the borefield. The model was used to inform the lateral extent of the drawdown effects on these features, noting that drawdowns of less than 0.1m are considered to represent less than minor effects (or effects that are in the realm of model uncertainty). The model predicts that the groundwater drawdown will be <0.1 m approximately 400 m downstream from the borefield. At this distance, the effects on surface flow are likely to be less than minor. Therefore, the effect of the abstraction on the Waimā (Ure) River in the vicinity of the tidal pool is expected to be less than minor.

GHD undertook field trials for augmentation of the Lower Waimā (Ure) River in July 2019 to confirm if augmentation was a suitable mitigation method, and results confirmed a combination of augmentation and gravel extraction (to form a deeper artificial channel near the existing main river channel in the vicinity of the borefield – an area approximately 400 m up- and downstream of the SH1 bridge), would mitigate potential stream depilation effects.

To ensure any potential adverse effects of the take on surface water flows (and the associated freshwater habitat) are avoided, remedied or mitigated, it is recommended that conditions requiring specific monitoring, management and mitigation activities be required as part of the consent. These include conditions on the maximum rate of abstraction, water metering, flow augmentation, preparation of a Groundwater and Surface Water Monitoring Plan (“GSWMP”) to enable the hydrological effects of the scheme to be validated and to identify any adaptive management response that may be required to address the cumulative effects of the water take on ground and surface water, and a requirement to undertake reporting and review against the consent conditions. In addition to this, proposed staging within the first three years which is consistent with the initial monitoring will ensure that potential effects are well understood prior to full commissioning of the scheme.

Effects on side tributary and natural wetlands:

As detailed in the GHD report, the analytical and numerical assessments did not directly assess flows and water levels within the side tributaries/drains and wetland areas.
However, a review of aerial photographs and water level elevation indicates that the side tributaries/drains and wetlands are perched above the shallow groundwater system. Recharge to these areas are likely to be driven by surface flow, run-off and seepage from the base of the hills to the north of the valley. In addition, water level monitoring during pump testing show no obvious impact on water levels in the farm drain from groundwater abstraction.

The available information therefore indicates that the wetland systems are independent of the groundwater system. As a result, and as explained by GHD, the effects of the groundwater abstraction are expected to be negligible and there will be no loss to the extent of the wetlands.

Saline Intrusion Effects:

Abstraction of groundwater also has the potential to affect the position of the freshwater-saline interface and lead to saltwater contamination of the aquifer. An assessment of the potential for the take to have saline intrusion effects was also undertaken by GHD as part of the groundwater assessment . As detailed in the GHD report, due to the freshwater recharge to the system, it is likely that the fresh water-saline interface is positioned offshore. Groundwater conductivity was monitored in the closest monitoring well to the coast (MW2) throughout the pump testing program. No increase in groundwater conductivity was apparent during pumping of the lower aquifer. Instead, a gradual decrease in groundwater conductivity was observed over a 48-day period as the well stabilised following drilling and development.

Based on the investigations undertaken, the GHD report states that saline intrusion effects from the proposed abstraction are unlikely. However, ongoing monitoring with cut off triggers will ensure no actual effects occur.

Ecological effects:

The ecology report provides a detailed assessment of the ecological values of the Waimā (Ure) River at and around SH1 Road and rail bridges (and including the side tributary) and the modelled effect of the proposed groundwater abstraction on the key habitats for indigenous flora and fauna. The assessment draws on the results of GHD's hydrological modelling of the effects on Waimā (Ure) River surface flows of the groundwater take.

As detailed, the lower reaches of the Waimā (Ure) River are naturally intermittent and, in many years, surface water flow is absent for several months through summer (and occasionally up to 6 months). Analysis of the monthly water abstraction has identified that because of the likely high degree of connection between the River and the shallow gravel aquifer, there is a high potential for detrimental effects on the River's ecology from the take without mitigation and management measures in place.
The primary impact will be an increase in the frequency and duration where the River runs seasonally dry. In years when the River does dry under natural conditions, this generally spans one to three months (typically drying in Jan or Feb, and sometimes through until March). However, with monthly water abstraction at peak rates, the River is predicted to dry for upward of 6 months (early November to late April or May).

An extended dry period would reduce habitat availability for fish, macroinvertebrates and braided river birds during breeding, and would impact on fish passage during seasonal fish migration. Without mitigation/management measures, this change could, depending on the rainfall over period, reduce habitat availability for fish, macroinvertebrates and braided river birds during breeding, and could impact on fish passage and spawning during critical migration periods.

Effects on habitats of indigenous flora and fauna:
All the indigenous fish species found in Waimā (Ure) River are migratory, requiring access between freshwater habitats and the sea to complete their lifecycles. Additionally, assessments of macroinvertebrate communities indicated a good level of stream health, with diversity representative of braided river habitats.

In terms of the level of effects on freshwater ecology, the ecology report states that an increase in the duration of dry days / intermittency in river flows, which also coincides with critical periods for fish passage and migration along with the additional risks relating the water quality from increased shallow water and reduced flows (DO, temperature etc), is likely to have a Very High magnitude of effect on the Very High value of Waima River's in-stream ecology (without mitigation in place). However, with mitigation measures of surface water augmentation and associated grave extraction to ensure there is sufficient water flow within the river, the ecological report concludes (at Table 22) effects on the river are Low.

Further assessment on effects on macroinvertebrates was provided by Dr Dean Olsen who concluded the following:
The primary objective of the proposed mitigation (including flow augmentation and gravel extraction) is to ensure that there is no net loss of habitat for aquatic life, by mimicking the natural pattern of drying (thereby ensuring that flow permanence in the lower Waimā is not increased by the proposal). This should ensure that the groundwater abstraction does not result in an increase in the duration or extent of drying, meaning that there should be no effect on the diversity or abundance of benthic macroinvertebrates in the lower Waimā River.

Effects on riverine bird ecology:

Changes in surface flows in Waimā (Ure) River have the potential to affect river birds. The main potential effect of reductions in river flows on river birds is a possible decrease in the availability of suitable aquatic foraging habitat or food supplies. In total, the Boffa Miskell surveys recorded 10 river bird species in or around the Waimā (Ure) River. All these species are indigenous, with eight are classified as nationally Threatened or At Risk. Four bird species have been recorded using the River and riverbed below Ure Road Bridge, which are dependent on the Riverbed for feeding and / or breeding. These species are banded dotterel, South Island pied oystercatcher, pied stilt and black-fronted dotterel. Based on the information available on changes of the extent and quality of aquatic foraging habitat and food sources for these species, the assessment is that the loss of aquatic feeding habitat during the breeding season could have a Moderate magnitude of effect on these species, which equates to a Moderate to High level of effect, without any mitigation in place to provide aquatic feeding habitat. With the recommended monitoring and management measures in place, the assessment concludes that there will be no measurable adverse effect on valued fauna (including the at risk and threatened species).

As outlined by the ecology report, the coastal hāpua (lagoon) is used by a diverse range of wetland / water and coastal bird species for resting, feeding, washing and drinking. Previous surveys and Boffa Miskell's recent survey recorded 10 indigenous bird species using the hāpua, including six Threatened and ‘at risk' species. Based on GHD's modelling, the ecology report concludes that the magnitude of the effect on the wetland / water and coastal bird species that use the coastal hāpua is considered to be Negligible and the overall level of ecological effect is Very Low – Low, without mitigation in place.

Effects on wetland ecology and habitats:

The ecology report assesses the effects of the take on the wetland vegetation. The wetlands are assessed separately because (as per GHD, 2020) there

appears to be no surface or groundwater water connection between them, and the effects of the take on each one are likely to differ because of their different distances from the Waimā (Ure) River, their location on different alluvial terraces, and the source of surface and groundwater inputs into each wetland is different.

As outlined in the ecology report, in general terms, groundwater abstraction and resulting lowering of the groundwater table could have several potential effects on wetlands including:
• Drying because of reduction in groundwater levels,
• Reduction in wetland extent and loss of wetland habitat,
• Changes in wetland plant species composition, including dryland species invasion, and
• Reduction in habitat quality for wetland fauna.
Based on the relative elevations of the Riverbed and the wetlands, and the preliminary results of the water level monitoring, it is considered that the proposal will have a Negligible magnitude of effect on the magnitude of effect on the wetlands. Therefore, the level of ecological effect has been assessed as Very Low (a Negligible magnitude impact on High ecological value), without mitigation.

Landscape, natural character and visual effects:

In physical terms, the report outlines that the infrastructure necessary to accommodate the groundwater take will entail minimal apparent physical changes in landform in the context of a working rural landscape which adjoining the margins of an existing modified river corridor.

In terms of visual effects, the landscape assessment report states that any visual change will be limited to areas within and adjoining the lower reach of the River. When observed from the SH1 and rail bridges (which cross the lower reach of the River), views of the proposed borefield and associated infrastructure (including localised vegetation clearance to provide access) will remain limited and are unlikely to be noticed in the context of transient views passing through a modified working rural landscape. Provided the riverside infrastructure is buried and the proposed electrical building is sited beyond the vegetated river margin, and coloured to remain recessive in its surrounding rural context, any visual effects of the proposal will be very low and neutral.

The landscape assessment concludes that the buried infrastructure and gravel extraction associated with the proposed take will remain well contained and generate low landscape and very low [answer truncated to 25000 characters]

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Section 6: National policy statements and national environmental standards

What is the general assessment of the project in relation to any relevant national policy statement (including the New Zealand Coastal Policy Statement) and national environmental standard?

Please write your answer here:

National Policy Statement for Highly Productive Land (2022):
The National Policy Statement for Highly Productive Land 2022 (NPS – HPL) came into force on 17 October 2022 and seeks to ensure Highly Productive Land is proposed for use in land-based primary production. Policy 8 of the NPS-HPL seeks that highly productive land is protected from inappropriate use and development. Policy 9 seeks that reverse sensitivity effects are managed to not constrain land based primary production activities on HPL land. The proposal seeks to irrigate farmland in the Flaxbourne area, which will increase the productive value of this land. Some of this land is contained in Land Use Class 2 and 3 areas, and its productive value would be further enhanced by irrigation support. Therefore, the proposal is consistent with this NPS.

National Policy Statement for Indigenous Biodiversity (2023):
The National Policy Statement for Indigenous Biodiversity (NPS - IB) came into effect on 7 July 2023 and seeks to ensure there is no overall loss of indigenous biodiversity across Aotearoa New Zealand after the commencement date of the NPS. Under this, Significant Natural Areas are required to be identified and included into district planning frameworks. This has not occurred in Marlborough yet.
Nevertheless the ecological report, and further macroinvertebrate report undertaken to support the original application have identified the mouth of the Waima (Ure) River and the wetlands to the north of the mouth of the river as having significance when measured against the PMEP significance criteria as follows:
Waima Riverbed (between the Ure Road Bridge and the Coast) is ecologically significant because it scores High for representativeness, High for rarity, Medium for diversity and pattern and High for distinctiveness.
These criteria, although developed prior to the NPS- IB are similar, and therefore provide a relevant understanding that parts of the Waima (Ure) River are likely to be classified as a SNA.
Section 3.10 of the NPS sets out how to manage adverse effects on SNA, and includes at 3.10(2) adverse effects to be avoided:
(a) loss of ecosystem representation and extent:
(b) disruption to sequences, mosaics, or ecosystem function:
(c) fragmentation of SNAs or the loss of buffers or connections within an SNA:
(d) a reduction in the function of the SNA as a buffer or connection to other important habitats or ecosystems:
(e) a reduction in the population size or occupancy of Threatened or At Risk (declining) species that use an SNA for any part of their life cycle.
In addition, Section 3.10(3) sets out that any other adverse effects are to be managed by applying the effects management hierarchy (avoid first, then mitigate, then remedy etc).
Section 3.11 sets out exceptions to Clause 3.10(2) and includes specified infrastructure (in a regional plan) that provides significant regional public benefit, and there is a functional need or operation need for the new use to be in that particular location, and there are no alternative locations. In this case the proposal, and community irrigation schemes are not listed in the PMEP, and therefore do not meet the first part of this exemption. However, the proposal cannot be located elsewhere as it is reliant on the groundwater aquifer in this location, which accords with 3. 11.(1)(b) and (c). This means it does

not meet the exemptions and consideration of the above criteria is required.

The effects hierarchy also needs to be considered in accordance with 3.10(3). In this case, where effects have been identified as potentially adverse, and cannot be avoided due to the functional need for bores to be located in this portion of the river, mitigation measures have been adopted to augment the surface water flows and maintain the habitat for indigenous flora and fauna to an acceptable level. This will required ongoing adaptive management to ensure mitigation remains effective.

The ecological report concludes the following:

With the mitigation measures being carried out to a suitable standard, the overall levels of ecological effects range from low to very low. “Very low” is as low as can be obtained using the EIANZ EcIA system, even when both the value and the magnitude of the effect are “negligible”. The guide states that low and very low levels of effect should not normally be of concern, provided normal design, construction and operational care is exercised. In terms of any measurable effect, the magnitude of effect of the proposed groundwater take will be negligible. The magnitude of effect is determined by a combination of scale of effect and degree of change that will be caused in or to the ecological component, and ranges from very high to negligible. A negligible effect is defined in the EIANZ EcIA guidelines as a very slight change from the existing baseline condition; a change barely distinguishable, approximately the ‘no change’ situation; and / or having a negligible effect on the known population or range of the element / feature. Therefore, we predict that, with the proposed mitigation in place and carried out to a suitable standard, there will be no measurable adverse effect either to the valued fauna (at risk and threatened species) or to the nature and function of the braided river (the naturally rare ecosystem). This outcome will be measured, monitored and adapted using the adaptive management framework and mitigation measures proposed.

Given this, it is considered the proposal is consistent with the NPS - IB.

National Policy Statement for Freshwater 2020:
The National Policy Statement for Freshwater 2020 (NPS FW) came into effect after the original assessment under the resource consent process, and have further been updated in late 2023, with Government signaling further changes in the near future.
The primary objective of the NPS is to ensure health and well being of waterbodies is prioritised first, then health needs of people (drinking water) and third the ability of people and communities to provide for their social, economic, and cultural wellbeing now and in the future.

The relevant policies giving effect to this objective required the following:
• Give effect to Te Mana o te Wai
• Tangata whenua are activity involved in decisions and Maori freshwater values are identified and provided for.
• freshwater is managed on a whole of catchment basis.
• The loss of river extent an values is avoided where practicable
• Habitats of indigenous freshwater species are protected.
• freshwater is allocated and used efficiently, and overall cation is phased out and future overallocation is avoided.

Most of the directions in the NPS -FW are directed at regional councils to ensure regional plans contain sufficient information and policy structure to achieve the outcomes of the above key policies. In particular section 3.5 sets out that integrated management requires a adopting the Ki uta ki tai (from the mountains to the sea) approach, and looking at the whole catchment when considering development. Modelling provided by GHD, and the outcomes of that modelling have taken this pragmatic approach. consideration of the whole water system from the headland catchment areas to the coastal mouth of the river have been considered, and mitigation to ensure effects of the proposal are appropriately managed have been proposed as a result.

The NPS - FW requires regional councils to set water take limits to ensure the priority of water use set by the objective is achieved. The PMEP does not include specified allocation limits, and therefore a default to a Mean Annual Low Flow (MALF) is set. this limit is significantly less than the volume granted in 2009 and less than the current proposal. The modelling undertaken by GHD, demonstrates the system has the capacity to provide for the proposed take, but this is technically inconsistent with the NPS - FW through the allocation limits set in the PMEP.

Section 3.24 relates to rivers and requires the following policy to be included into regional plans:

“The loss of river extent and values is avoided, unless the council is satisfied that:
(a) there is a functional need for the activity in that location; and
(b) the effects of the activity are managed by applying the effects management hierarchy.”

In this case, the proposal if no mitigation was offered would result in a loss of river values through the take of water increasing the number of dry days for the lower part of the Waima (Ure) River. However, there is a functional need for the take to be located in the riverbed as described extensively elsewhere, and through adopting the approach of it not being practical to avoid effects, but through river gravel management and surface water augmentation it is possible to significantly mitigate effects, the proposal remains consistent with the wording of this policy.

New Zealand Coastal Policy Statement 2010:

An assessment of this policy was provided as part of the original consents, and no significant changes to the NZCPS have occurred since then. The following assessment is therefore still relevant;

As identified in the ecology assessment report (Appendix 5), five fish species are identified as being ‘At risk, declining' (Longfin eel, inanga, bluegill bully, koaro and torrentfish) and one species as ‘at risk, naturally uncommon' (giant bully). In terms of birds, eight river bird species (avifauna) are classified as ‘nationally threatened' or ‘at risk'. Three species are ‘threatened' (black-billed gull, banded dotterel and Caspian tern), and five are ‘at risk' (red-billed gull, South Island pied oystercatcher, white-fronted tern, variable oystercatcher and black-fronted dotterel).

As discussed in the ecology report and Section 8.6 of this report, the lower Waimā (Ure) River is a highly modified and dynamic river environment, which incurs regular disruptions, manmade or natural, as well as regular sustained periods of low or no flows, combined with occasional major floods. However, the River is demonstrably dynamic and resilient to change as evidenced by the presence of indigenous fish and birdlife.

The duration of periods in which the River would have low or no surface flow has been conservatively modelled to increase with the proposed water take. In response to this, an adaptive management framework has been developed, which includes the implementation of measures to augment surface water flows at and around the SH1 bridge and the annual construction of new river channels to mitigate for the predicted loss of surface water and increased dry/drying conditions. This adaptive management framework includes a rigorous monitoring regime to enable tracking of success and amendment of the management measures, if required, to ensure there will be no adverse effects either to the valued fauna (at risk and threatened species) or to the nature and function of the braided river (the naturally rare ecosystem).This will ensure that biodiversity is protected through avoidance. Significant adverse effects are not anticipated.

The proposed staging of abstraction over the first three years will provide for monitoring to assess any unexpected effects prior to full production. A review at three years will ensure that the mitigation package is effective for managing the effects of the full abstraction.

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Section 7: Eligibility

Will access to the fast-track process enable the project to be processed in a more timely and cost-efficient way than under normal processes?

Yes

Please explain your answer here:

The proposal seeks approval to enable an irrigation scheme to provide for 1,252.5 ha of land to be irrigated, and provide security of water supply for a township forming part of the Marlborough Region. This has the potential to support the regions economy and improve the quality of life for residents in the township of Ward. Thus, this is considered to be a regionally significant project for the Marlborough Region. This part of Marlborough has been severely hampered by subsequent droughts, including this year where the area has been declared in a drought by government, and the droughts of 1997/98, 2000/01 and 2003/04 being recognised as the driest years in living memory, and the effects of the 2016 earthquakes. The township of Ward is subject to a water take and use consent which is consistently being breached through oversubscription.

The proposal has been limited in recent history (resource consent U200349) by the process under the RMA needing to seek resource consents, and subsequently the development has not progressed. There has been unfortunate timing with the introduction of a new regional plan (the PMEP) which did not include a flow allocation limit for this river at the time of notification, and subsequently a default conservative limit is required to be imposed in line with the NPS for Freshwater. The fast tracked approvals process enables the scientific information available to be able to speak to the actual effects, and avoid the technical limitations of the PMEP and the NPS for Freshwater.

Investigations into finding a reliable water supply source to support large-scale irrigation of the Flaxbourne area have been ongoing over a number of years, with investigations dating back to the 1990s. Council rating to find a solution was included in the 2013/2014 Long Term Plan by Marlborough District Council. The most recent consenting pathway explored took three years (up until it was withdrawn) and did not result in a conclusion.

The surface water take consent granted in 2009 has not been actioned, and as a result, the consent has now lapsed. Instead, over the past 10+ years, further refinement of the irrigation scheme and consideration of alternative water sources to improve the reliability and affordability of the scheme has been undertaken by FCIL.

One of the key issues for FCIL has been the high costs associated with creating the required water storage and the geographic distance of supply, making the consented irrigation scheme uneconomic.
In 2014, there was a move away from the Waimā surface water take to exploring options of taking water out of the Awatere River to a storage dam. However, after more detailed investigation, all storage options were considered to be uneconomic.

The Fast-Tracked process would enable this infrastructure to be constructed and operational within a 2-year timeframe.

What is the impact referring this project will have on the efficient operation of the fast-track process?

Please write your answer here:

Referring this project will enable the consistent application of the fast-tracked process to deliver appropriate outcomes for a community limited by access to water, in a timely manner. The nature of this project, and its extensive history, means it is ready to progress swiftly once approved. Therefore, this project will deliver the outcomes anticipated by the fast-tracked process.
Farmers have expended in excess s 9(2)(b)(ii) to support this development with an equal amount provided by the previous National Governments irrigation funding (Irrigation Limited and more recently Kanoa PGF funding agreement).
This would conclude nearly 20 years of work by the local farming community in its attempts to secure water to unlock productive potential of the land and the flow on economic and social benefits.

Has the project been identified as a priority project in a:

Local government plan or strategy

Please explain your answer here:

The need to reliable water for irrigation in the Flaxbourne area was identified in the 2013/2014 Annual plan, and further considered in the 2014/2015 plan and then included into the 2015 - 2025 long term plan as a targeted rate for subscribed landowners.

Budgets for construction of the scheme remain in Councils Long Term Plan.

Will the project deliver regionally or nationally significant infrastructure?

Regional significant infrastructure

Please explain your answer here:

The Flaxbourne irrigation scheme has been raised as a critical issue for this part of Marlborough for almost 20 years, and has been included into Annual and Long Term Plans for Marlborough District Council since 2015, with the 2021 - 2031 Long Term Plan noting the following:

Rationale for the delivery of the Regional Development Activity Group Council decisions and actions can significantly assist the development of the regional economy by encouraging local business initiatives and innovation, attracting new investments, and by presenting Marlborough as an attractive tourist destination. As a provider of infrastructure (such as roading, water, parking and irrigation), as a regulator of many business activities, Council is both a facilitator and encourager of development in the region (page 196).

The proposed scheme is likely to generate significant economic returns to the region, ensuring the infrastructure supporting this is vital to the overall growth of the Flaxbourne area, which has positive growth effects in the wider Marlborough Region.

Key economic impacts of the scheme have been assessed as follows:
a. Increased Gross Domestic Product (GDP) $30 million per annum.
b. Increase export earnings (Free on Board - FOB) $49 million.
c. Increase direct employment 97 Full Time Equivalents (FTE's).

Furthermore, the proposal includes sufficient water to support the township of Ward with drinking water supply. This aids in ensuring there is a secure and reliable source of drinking water for the community, benefiting the further growth of one of the regions townships.

Will the project:

increase the supply of housing, address housing needs, contribute to a well-functioning urban environment

Please explain your answer here:

The proposal includes providing for water supply for Ward township. Adequate and secure water supply contributes to a well-functioning urban environment, and in particular helps to secure against the effects of climate change on water supplies for the township. A lack of water supply for the township of ward limits opportunities for growth and to support housing for the rural sector.

Will the project deliver significant economic benefits?

Yes

Please explain your answer here:

An economic report of the proposal was completed for the original resource consent application and has been provided as part of the information to support the development. The executive summary of this report is as follows:

2. Gross operating return for landowners converting from dryland farming to viticulture is approximately s 9(2)(b)(ii) per hectare having taking into account the cost of water from the scheme proposal. Returns from dryland farming were previously assessed at s 9(2)(b)(ii) per hectare and it is not envisaged that these returns have changed markedly.
3. The internal rate of return for landowners has been assessed at 6.8% based on conservative assumptions in relation to scheme costs, development costs, yields and cost of operations.
4. The improved financial returns for landowners are expected to be reflected in improved land values estimated to increase from existing values of s 9(2)(b)(ii) per hectare to new values of s 9(2)(b)(ii) per hectare (Alexander Hayward). Improved land value is associated with change from non-irrigated to irrigated land.
5. Sensitivity analysis highlights financials are most sensitive to changes in grape yields achieved and grape income. For example an increase in yields of 10%, increases the internal rate of return from 6.8% to 9.1%.
6. Conversely changes to the scheme costs have little impact on the internal rate of return. For example a 10% shift in scheme costs from s 9(2)(b)(ii) to s 9(2)(b)(ii) reduces the internal rate of return from 6.8% to 6.65%.
7. Key economic impacts of the scheme have been assessed as follows:
a. Increased Gross Domestic Product (GDP) s 9(2)(b)(ii) per annum.
b. Increase export earnings (Free on Board - FOB) s 9(2)(b)(ii).
c. Increase direct employment 97 Full Time Equivalents (FTE's).
8. It is concluded that the Flaxbourne Irrigation Scheme provides improved financial return for landowners in the area and significant economic benefit.
9. It is expected that some of the regional economic benefit will be localised to the Flaxbourne area providing benefits to the local community.

The returns listed in 7 above are considered to be significant for the Flaxbourne area, and for the wider Marlborough Region.

Will the project support primary industries, including aquaculture?

Yes

Please explain your answer here:

The proposal seeks to enable the irrigation farmland to support conversion to more intensive/productive uses, most likely viticulture. The Social Impact Report provided as part of the original application described the support this proposal will make to the district as follows:

The Flaxbourne area is located in a very dry part of the country in Eastern Marlborough. The town of Seddon lies 20 km north and the provincial centre of Blenheim 50 km north. As local farming leader Kevin Loe succinctly puts it: "We measure rainfall in millimetres and evapo-transpiration in metres."
The area was part of the first sheep station in the South Island, and covers 26,000 ha.
The population of the area was 312 in 2018 as discussed in more detail below. While the area continues to rely heavily on sheep and beef farming as the predominant land use, there have been important diversifications of land uses and there are multiple activities in the local economy. Economic activity includes viticulture, the salt works, and tourist activity along the route of SH1. Commercial fishing off Ward beach provides a number of jobs and there is a fish processing factory in the village.
Within the area lies the township of Ward, which had a population of 81 in 2018. The township provides a number of services to the local area and also passing traffic and visitors. Other services and businesses in the town include a service station and café/bar, a motel, church, the Ward Primary School, which is an important community hub, and the community hall, which is another centre for community connection.
Irrigation should enhance the economic and social wellbeing of the people and community of Flaxbourne as it will cause significant land use change in the project area. Expansion of viticulture and increased resilience of farming enterprises through diversification of land uses will bring additional employment and people to the district, with flow on benefits to services and other businesses. Enhanced resilience of farming systems should help to build the resilience and social capital of the area.

Will the project support development of natural resources, including minerals and petroleum?

Yes

Please explain your answer here:

The proposal seeks to utilise an existing gravel aquifer as a storage solution for water to supply irrigation. This will involve taking groundwater at a rate of up to 360.9 L/s to support on demand irrigation needs, and avoids the large land are required for water storage.
The proposal does not include the development of minerals or petroleum resources.

Will the project support climate change mitigation, including the reduction or removal of greenhouse gas emissions?

Yes

Please explain your answer here:

The proposal seeks to ensure there is water supply for irrigation and a township in an area where the effects of climate change result in increased dry weather during summer months. Given this, the proposal supports the reliance of people from the effects of client change (i.e. drought). The groundwater modelling provided by GHD includes consideration of climate change on the river flows to ensure the effects have been considered in light of climate change.

The proposal enables a shift away from pastural farming practices towards viticulture, which reduces the use of nitrogen fertilisers, and is considered to be a very efficient use of water.

Will the project support adaptation, resilience, and recovery from natural hazards?

Yes

Please explain your answer here:

Growth in the Flaxbourne area has been severely hampered by continued droughts (including 1997/98, 2000/01 and 2003/04 and 2023/24) and ongoing effects from the 2016 earthquakes in the area.
The earthquakes had significant physical effects through the land shifting, but also significant social impacts with many people loosing confidence in the area.

The proposal will enable a security of water supply to support the growth and development of this area, and support future resilience from these adverse natural events. Furthermore, the growth of the area will support the movement of additional people to the area, increasing the sense of community and making the community more able to work together to recover from and adapt to natural hazards. This includes the return of succession farming enabling children to return to the farm due to increased productivity of the land. The development will also bring additional revenue to the area which will support ongoing growth of Ward Township (being the service town), including school role. But again enabled by the enhancement of the Ward Township water

supply.

Will the project address significant environmental issues?

Yes

Please explain your answer here:

The purpose of the proposal seeks to address the overarching issue of regular drought in this area, and provide a solution to ensure economic primary production activities occur, and township water supply is secured.

Is the project consistent with local or regional planning documents, including spatial strategies?

No

Please explain your answer here:

The proposal is not consistent with the PMEP, because the PMEP relies on default flow allocation limits for the Waima (Ure) River, which are substantially less than the modelling, and Council advisors agree can be accommodated. This is a technicality of the timing of the PMEP, and the requirements under the NPS - FW at the time.

Anything else?

Please write your answer here:

History of seeking water in Flaxbourne:
Early investigations (pre-2008)
Following repeated dry conditions (with the droughts of 1997/98, 2000/01 and 2003/04 being recognised as the driest years in living memory) and consequent restrictions on community stock and domestic schemes, and total bans on irrigation takes during peak summer months, the Flaxbourne Water Enhancement Group ("FWEG") was established in 2005 with the aim of investigating and delivering a community water scheme to the greater Flaxbourne Area.
The FWEG was supported and funded by Council and by the Starborough Flaxbourne Soil Conservation Group. FWEG canvassed the area for interest in and demand for irrigation, and assessed where the water might be sourced to address that anticipated demand. From that group, a Community Irrigation Board of seven directors was elected to form the Flaxbourne Community Irrigation Group Limited.
Various supply options were investigated by the group, including taking surface water from the Flaxbourne River. The dependence of the Flaxbourne take on winter flows, the uncertainty in terms of flow reliability and the high cost associated with storage, presented significant risks to the scheme viability and it was deemed too expensive to progress this option any further.
Following the investigations, the group settled on taking surface water from the Waimā (Ure) River and placing it into storage to a dam.

Waimā (Ure) River surface water take (2008-09)
FCIL was established in January 2008 for the purpose of undertaking investigations for the establishment of a community irrigation scheme for Flaxbourne.
After investigation of a number of potential water resources, the Waimā (Ure) River was identified as a viable resource. An application for resource consent for a surface water take of up to 520 L/s from the Waimā was lodged with Council in 2008. In 2009, following a Council hearing and a Consent Order issued by the Environment Court modifying some of the consent conditions in response to appeals, FCIL was granted consent (U071402) for a surface water take from the Waimā (Ure) River at the Narrows to supply a community irrigation scheme in the Flaxbourne area for the purpose of irrigating some 2,500 hectares of pasture, agriculture, horticulture and viticulture crops and to place into storage.
The consent allowed a maximum instantaneous rate of abstraction of 520 L/s (or 45,000m3 per day) from the River for the irrigation scheme, subject to flow restrictions and a number of other conditions, and was granted for a term of 30 years.
The consent conditions included requiring baseline monitoring of surface water, groundwater and ecological surveys. The consent was structured in two stages. Stage 1 allowed for an annual abstraction of 3.5 million m3 at a maximum instantaneous rate of 520 L/s. Following completion of baseline surveys and additional monitoring, the annual abstraction rate could then be increased to 5.5 million m3 (Stage 2) provided the effects of the Stage 1 take can be shown to be no more than minor. Surface water abstraction (both Stage 1 and Stage 2) was also subject to seasonal flow restrictions.
The 2008 application (and the 2009 granted consent) was solely for the take and use of water from the Waimā (Ure) River, with further resource consents required for the construction of the intake structure, installation of pipelines, including stream crossings, storage dams and various other consents associated with establishing the scheme infrastructure.

Subsequent surface water take and storage explorations (post-2009)
The surface water take consent granted in 2009 has not been actioned, and as a result, the consent has now lapsed. Instead, over the past 10+ years, further refinement of the irrigation scheme and consideration of alternative water sources to improve the reliability and affordability of the scheme has been undertaken by FCIL.
One of the key issues for FCIL has been the high costs associated with creating the required water storage and the geographic distance of supply, making the consented irrigation scheme uneconomic.
In 2014, there was a move away from the Waimā surface water take to exploring options of taking water out of the Awatere River to a storage dam. However, after more detailed investigation, all storage options were considered to be uneconomic.

Waimā (Ure) River groundwater take - recent resource consent application 2020 - 2023
The investigation and ultimate discarding of various surface water take and storage options has led to the proposal to develop a groundwater based supply of irrigation water, drawing on a number of takes (bores) on the north bank of the Waimā (Ure) River, in the vicinity of the SH1 and rail bridges.
The proposed scheme will extract water from the lower aquifer and deliver it through a gravity fed pipeline network to shareholders in the Flaxbourne

catchment as far north as Lake Grassmere / Kāpara Te Hau. A map indicating the proposed irrigation scheme's geographic extent is provided in Appendix 4 for information purposes (Monadelphous, 2020).
A considerable amount of investigations and modelling have been carried out over the last 18- 24 months by FCIL to establish the confidence and certainty that the proposed groundwater scheme would provide a sustainable, reliable and financially feasible supply of water.
The proposed scheme has progressed to the point where the Council has enabled capital funding (via a targeted rate on the farmers signed up for the scheme) for the groundwater take. It is proposed that the Flaxbourne irrigation scheme will be a Council-owned and operated scheme (similar to the Southern Valleys' Irrigation Scheme already in operation), with its governance overseen by a sub-committee of Council made up of participating landowners and elected Councillors. This structure will provide the ability for Council to finance the scheme and recover the cost through targeted rating on participating landowners.
In addition, groundwater testing also indicates that the groundwater take is suitable for supplying the Ward township with a potable water supply. The current community water supply, drawn from a shallow aquifer next to the Flaxbourne River just north of Ward township, is untreated and does not comply with the Health Act or NZ Drinking Water Standards. Because of the significant treatment requirements and costs of bringing the current supply up to standard, the groundwater take is the preferred option. While the development of this part of the project is subject to further investigation and assessment, securing resource consent for the water supply forms a critical step in progressing a feasible new water supply solution for the Ward community

Positive effects:

The positive effects of the proposal area highlighted in the original application to MDC, and are still relevant as follows:

Groundwater is vitally important to the economic prosperity and general community wellbeing of Marlborough. This is particularly true in southern Marlborough, where many streams and rivers (including the Waimā) naturally dry up each summer because of low rainfall.
The proposal is expected to create significant positive economic, social and community effects. The statements of Kevin Loe (Chairman of Flaxbourne Community Irrigation Ltd) and John Hickman demonstrate the range of benefits for Flaxbourne farmers, the local community and broader employment and economic gains the irrigation proposal is expected to deliver.
In terms of economic effects, the assessment undertaken by Executive Finesse (refer Appendix 8) concludes that the Flaxbourne Irrigation Scheme will provide improved financial returns for landowners in the area and will provide significant economic benefits. The assessment expects that some of the regional economic benefit will be localised to the Flaxbourne area therefore providing benefits to the local community, including increased employment opportunities.
In terms of social benefits, a commentary has been prepared by Nick Taylor and Associates (2020, refer Appendix 9) on the potential social impacts of the proposal, based on the impact assessment work being undertaken for the Post-quake Farming Project, given water is an essential component of any possible shift in land use towards increased horticultural activity in drier parts of Eastern South Island.
The social impact commentary concludes that irrigation should enhance the economic and social wellbeing of the people and community of Flaxbourne as it will cause significant land use change in the project area, with resulting changes in population, employment, business activity and visitor numbers. While the area currently relies heavily on sheep and beef farming as the predominant land use, there have been some important diversifications in land uses and there are multiple activities in the local economy. These include viticulture, the salt works, and tourist activity along the route of SH1. Commercial fishing off Ward beach provides a number of jobs and there is a fish processing factory in the village.
The expansion of viticulture and increased resilience of farming enterprises through land use diversification of will bring additional employment and people (including visitors) to the district, with flow on benefits to services and other businesses, including to the motel, café and garage, and to farms offering commercial accommodation and associated activities. Increases in local population will also benefit services that are dependent on population numbers such as the school roll. Overall, the enhanced resilience of farming systems will help build the resilience and social capital of the Flaxbourne area.
Specifically, the proposal is anticipated to provide the following benefits:
• It provides for the efficient use of available water resources and supports multiple uses including irrigation, community water supply and freshwater ecology;
• It will enable 1,252.5 ha of drought-prone farmland within the Flaxbourne catchment (between the Waimā (Ure) River and Lake Grassmere in the north) to be efficiently irrigated, resulting in greater diversification of land use and an increase in more sustainable land uses, a reduction in sheep and beef use, and as a result, less nitrogen use/application to land34 and any associated runoff into water bodies, and more efficient production in terms of the crops grown;
• It will provide regional growth and resilience outcomes for the Flaxbourne community resulting from diversified land uses and primary sector activities. Estimates provided to FCIL35 indicate that it will support increased productivity from land within the scheme and will have the following key economic impacts;
o Increased Gross Domestic Product of s 9(2)(b)(ii) per annum
o Increased export earnings of s 9(2)(b)(ii), and
o Increased direct employment of 97 Full Time Equivalents.
• The proposed monitoring and mitigation/management works (including river augmentation and artificial channel construction) will work together to avoid any adverse effects from the take and protect the Waimā (Ure) River water resource and identified river values;
• In addition to increased diversification, more sustainable land uses and less nitrogen use, the scheme will deliver other environmental benefits in that irrigation during dry periods will assist with sediment runoff issues resulting from heavy rain events (such as those experienced in April 2014). This benefit will occur through the increase and consistency in ground cover plantings for productive land and improved soil moisture content from irrigation;
• Any excess extracted gravel will be able to be made available for a range of potential uses;
• It will deliver a range of social and recreational benefits from community growth and increased community cohesiveness through a collective community-led approach to water management and land use; and
• It can provide a potable water supply for the township of Ward that, following treatment, could comply with the Health Act and NZ Drinking Water Standards.
The Flaxbourne catchment area is recognised as being both reasonably fertile but relatively drought-prone. Irrigation and potable water supply are reasonable and appropriate uses of the water resource in the Waimā (Ure) River. The Applicant has demonstrated that the proposed groundwater take will be exercised in a manner that will respect both the ecological values of the River (and its side tributaries and wetlands) and the requirements of other

water users. The water abstracted will also be applied in an efficient manner, ensuring that the resource is used both wisely and effectively.

Does the project includes an activity which would make it ineligible?

No

If yes, please explain:

Section 8: Climate change and natural hazards

Will the project be affected by climate change and natural hazards?

No

If yes, please explain:

Natural hazards
The mid-lower reaches of the Waima (Ure) River are located in the Level 3 Flood hazard area under the PMEP. The eastern borefield area falls within the mapped flood hazard area. The nature of the development, and the minimal above ground structures and infrastructure are proposed within the flood hazard area, mean any risk from natural hazards is low. The bulk of above ground infrastructure can be located outside of risk areas on higher ground.

Climate change:
There is always the potential that changes to the climate have the potential to impact the flows in the Waima (Ure) River, and the proposal is reliant on groundwater levels to support the development. The proposal includes consistent monitoring and adaptation to ensure effects from climate change are appropriately managed.

Section 9: Track record

Please add a summary of all compliance and/or enforcement actions taken against the applicant by any entity with enforcement powers under the Acts referred to in the Bill, and the outcome of those actions.

Please write your answer here:

There have been no compliance or enforcement actions taken as no action towards this project has been enabled.

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Declaration

Do you acknowledge your submission will be published on environment.govt.nz if required

Yes

By typing your name in the field below you are electronically signing this application form and certifying the information given in this application is true and correct.

Please write your name here:
Anna Bensemann

Important notes