Appendix 6: NES-F Assessment

Purpose

The purpose of this assessment is to assess the proposal against Regulation 45C and 57 of the National Environment Standards for Freshwater (NES-F) with regard to wetland and stream works respectively.

NES-F requirements

Works in or near waterways for urban development is a Restricted Discretionary Activity under Regulation 45C(1)-(5) of the NES-F. The proposal involves the works listed under (1) to (5) including vegetation clearance, earthworks/land disturbance, diversion and discharges of water.

Regulations 45C(6) and (7) set out the criteria that must be considered for consent to be able to granted:

> *(6) A resource consent for a restricted discretionary activity under this regulation must not be granted unless the consent authority has first—*
>
> *(a) satisfied itself that the urban development—*
>
> *(i) will contribute to a well-functioning urban environment; and*
>
> *(ii) will provide significant national, regional, or district benefits; and*
>
> *(b) satisfied itself that—*
>
> *(i) there is no practicable alternative location for the activity within the area of the development; or*
>
> *(ii) every other practicable alternative location in the area of the development would have equal or greater adverse effects on a natural inland wetland; and*
>
> *(c) applied the effects management hierarchy.*
>
> *(7) A resource consent for a restricted discretionary activity under this regulation must not be granted if the activity—*
>
> *(a) occurs on land other than land that is identified for urban development in the operative provisions of a regional or district plan; or*
>
> *(b) occurs on land that is zoned in a district plan as general rural, rural production, or rural lifestyle.*

The matters of discretion under Regulation 45C(11) cover similar matters as Regulations 45C(6) and (7):

> *(11) The discretion of a consent authority is restricted to the matters set out in regulation 56 and the extent to which—*

(a) the urban development will be of significant national, regional, or district benefit; and

(b) the activity contributes to a well-functioning urban environment; and

(c) there is another practicable alternative location in the area of development for the activity, and the extent to which other practicable alternative locations within the area of development would have equal or greater adverse effects on a natural inland wetland; and

(d) an alternative configuration or design is practicable that would avoid, minimise, or remedy adverse effects on the natural inland wetland extent and values; and

(e) the effects of the activity will be managed through applying the effects management hierarchy.

With regard to streams, the reclamation of rivers is a Discretionary Activity. Regulation 57(2) sets out the criteria that must be met for consent to be granted:

(2) A resource consent for a discretionary activity under this regulation must not be granted unless the consent authority has first—

(a) satisfied itself that there is a functional need for the reclamation of the river bed in that location; and

(b) applied the effects management hierarchy.

The above matters are assessed in turn below.

Regulation 45C(6)(a)(i): Will the urban development will contribute to a well-functioning urban environment?

Policy 1 of the National Policy Statement on Urban Environment (NPS-UD) provides a set of criteria for what can be considered a 'well-functioning urban environment".

Policy 1: *Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum:*

(a) have or enable a variety of homes that:

(i) meet the needs, in terms of type, price, and location, of different households; and

(ii) enable Māori to express their cultural traditions and norms; and

(b) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and

(c) have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and

(d) support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets; and

(e) support reductions in greenhouse gas emissions; and

(f) are resilient to the likely current and future effects of climate change.

These criteria are assessed in Appendix 5 on page 3 which finds that the development will contribute to a well-functioning urban environment as:

- Clause (a) – The Proposal will enable the supply of over 949 homes in an area where there is high demand. The Proposal enables a greater density of development than is currently provided in Pukerua Bay and this will provide for a greater variety of homes in the area. Increased housing supply will assist in improving affordability through providing supply to meet demand within the market, while increasing competition which puts downward pressure on prices. Increased housing supply will assist in improving affordability through providing supply to meet demand within the market, while increasing competition which can put downward pressure on prices. The Proposal will provide a supply of housing for a broad range of people from first home buyers to retirees. With regard to Policy 1(a)(ii), the Applicant has been working in partnership to ensure the development is aligned with these matters as expressed by Ngāti Toa Rangatira through Te Rūnanga o Toa Rangatira (Te Rūnanga). While Te Rūnanga while have not provided specific comment on the type of homes with regard to enabling Māori cultures and norms, they do however "strongly encourage ensuring that the Mt Welcome development aligns with the Northern Growth Area Structure Plan" (Refer letter dated 19 September 2025 in Appendix 2);
- Clause (b) – The proposed neighbourhood centre area will provide for a variety of sites that are suitable for different business sectors, this area is well-located to serve the development and the wider Northern Growth Development Area as well as the existing Pukerua Bay Community which currently has only has a very small commercial area;
- Clause (c) – The proposed development will provide good accessibility for residents through providing multi-modal transport options between housing, open space and a neighbourhood centre within the development, and the site is well-located for multi-modal transport outside the development, including being in close proximity to an existing high-frequency railway station. The proposed roading typology allows for a future bus route through the site and to the north and south (see Collector Road identified in ITA).
- Clause (d) – The Proposal supports competitive land markets as it enables housing in a location where there is high demand and constrained supply, the Economic Assessment provided in Appendix 11 finds that[1]:

> *The proposal is estimated to supply dwellings to the market at an average price of $1,060,000, with 318 (34%) priced below $1,000,000. These dwellings will be approximately $75,000 - $160,000 (7 -15%) less expensive than the average sale price of the surrounding key developments in the study area, providing a substantial quantity of relatively affordable new dwellings, placing downward price pressure on the overall housing market. As such, the proposal is considered to address a gap in the lower -mid priced new-build market, helping to meet the needs of a market segment that is currently underrepresented (e.g. low er-middle income households seeking relatively affordable new homes). This demonstrates the proposal 's ability to provide comparatively affordable new housing in Porirua City and the wider region.*

[1] Refer page 4.

> *...at 949 dwellings, the proposal represents a 39% increase to the current and pipeline greenfield supply and increases the number of years of capacity to 12.3 years, which would meet the medium-term capacity requirements for the study area, in terms of dwelling quantity.*

- Clause (e) – The site is well located with respect to commercial and community services, natural and open spaces, and active transport modes. The design and layout of the development will encourage the use of low-emission modes of transport including walking, cycling and public transport as an alternative to private car use. A neighbourhood centre is proposed which will assist in meeting daily convenience needs and reduce the need for private vehicle use to centres further afield. As noted above, the site is well located for multi-modal transport both within and outside the site, including being in close proximity to an existing high-frequency railway station. The proposed roading typology will allow for a future bus route through the main transport spine of the site. Further, the removal of stock from the site will result in reduced agricultural methane emissions;
- Clause (f) – The future impacts of climate change have been considered through design of the stormwater management system, including the use of nature-based solutions such as retention wetlands. These systems are designed to future proof the development against the predicted impacts of climate change such as increased rainfall intensity.

Regulation 45C(6)(a)(ii): Will the urban development provide significant national, regional or district benefits?

The development will provide significant economic benefits, as well as environmental and social benefits as outlined below, as such it is consistent with Regulation 475C(6)(a)(ii).

<u>Economic benefits</u>

Increased housing supply will assist in improving affordability through providing supply to meet demand within the market, while increasing competition which can put downward pressure on prices[68]:

> *The proposal is estimated to supply dwellings to the market at an average price of $1,060,000, with 318 (34%) priced below $1,000,000. These dwellings will be approximately $75,000 - $160,000 (7 -15%) less expensive than the average sale price of the surrounding key developments in the study area, providing a substantial quantity of relatively affordable new dwellings, placing downward price pressure on the overall housing market. As such, the proposal is considered to address a gap in the lower -mid priced new-build market, helping to meet the needs of a market segment that is currently underrepresented (e.g. low er-middle income households seeking relatively affordable new homes). This demonstrates the proposal 's ability to provide comparatively affordable new housing in Porirua City and the wider region.*

The Proposal will result in an increase in employment opportunities through greater development capacity for home businesses and other employment activities which are appropriate in residential areas, commercial activities within a new area of Neighbourhood Centre Zone, and through construction employment opportunities during development of the greenfield area.

The proposal will also create jobs for local workers during the construction of the development including roading, building, landscaping services. It will therefore positively contribute to economic growth and employment in the District.

During construction, the Proposal would create approximately 1,450 full time equivalent (FTE) jobs and generate an estimated $236 million gross domestic product (GDP) contribution. Once constructed, the expenditure of the future residents would contribute approximately $23 million to GDP and support 205 FTE jobs, and the operation of the proposed neighbourhood centre could create $8.9m GDP and support 90 jobs. The construction of the proposal would also make a significant contribution towards primary sector GDP and FTE employment. In total, the development of the project is estimated to result in a total contribution to primary sector GDP of $52.4 million, which would support an estimated 320 FTE jobs[69].

Environmental benefits

The Proposal also results in environmental benefits to the regionally significant catchments of Taupō Swamp and Pāuatahanui Inlet. These are achieved by improving degraded waterways onsite and retiring erosion-prone hill country land from primary production with associated contaminant discharges. The Ecological Assessment finds[2]:

> *The level of change of aquatic habitat and the loss of natural inland wetland is at the low end of the level of ecological effects and the ecological effects after management (avoidance, minimisation, remedy) are less than minor and do not warrant an offset. However, an offset is offered and the net result in terms of stream habitat and natural inland wetland habitat is a gain in quality and quantity of aquatic habitat and natural wetland and beneficial supporting land use and controls (stormwater quality protection, riparian protection, removal of farming practices).*

Social benefits

Further positive environmental, social and cultural benefits will be realised due to good accessibility from the proposed new residential allotments to parks, local shops, schools, and community facilities.

Cultural benefits

Ngāti Toa Rangatira supported the rezoning of the site through Variation 1, and they support the full implementation of the Structure Plan as outlined in **Appendix 2**. Ngāti Toa also supports the enhancement of streams through riparian planting and the removal of stock from riparian margins.

However, it should be noted that they do not support the reclamation of waterways including the offsetting approach provided for the effects management hierarchy.

Regulation 45C(6)(b)(i): Is there another practicable alternative location for the activity within the area of the development? and;

Regulation 45C(6)(b)(ii): To what extent do other practicable alternative locations within the area of development have equal or greater adverse effects on natural inland wetlands?

Methodology

[2] Refer page 3.

Various options have been considered throughout the planning phases of this project with the objective of achieving a viable yield while avoiding works in waterways where practicable.

Because the NES-F relies on assessment of other practicable alternatives for activities impacting natural wetlands, the options assessment included contributions from ecology, engineering, planning, and economics disciplines looking at:

- Potential lot yield to provide housing capacity;
- Area of waterway loss; and
- Earthworks volumes.

Assessing alternatives against these criteria is important as it can be determined if a well-functioning urban environment can be created by achieving a yield that provides for the viable development of the Site while minimising waterway disturbance and earthworks volumes as far as practicable.

Lot yield is a key driver of the development's feasibility. Low yields are likely to make the project uneconomic. Delivering new lots supports regional housing targets and urban form objectives under the NPS-UD.

Waterway loss needs to be avoided "where practicable" as part of the effects management hierarchy (clause 3.21 of the NPS-FM), before the rest of the hierarchy can be considered: minimise, remedy, or offset, or compensate. Where offsetting is applied, best practice is to provide for offsetting ideally on the site or within the same catchment (Refer Appendix 6 of the NPS-FM – Principles for aquatic offsetting).

Minimising earthworks where practicable is a requirement of the District Plan (refer DEV-NG-P2). There are adverse effects associated with earthworks including cost implications for the developer, visual effects, potential for erosion and sedimentation if they are not managed correctly, and the carbon footprint in terms of emissions.

Three options are explored below in detail, being:

- Concept A - Minimal stream wetland disturbance
- Concept B - Maximise lot yield
- Concept C – The proposed approach

<u>Concept A - Minimal stream wetland disturbance</u>

A minimal stream and wetland disturbance concept was explored as shown in **Figure 1** below.

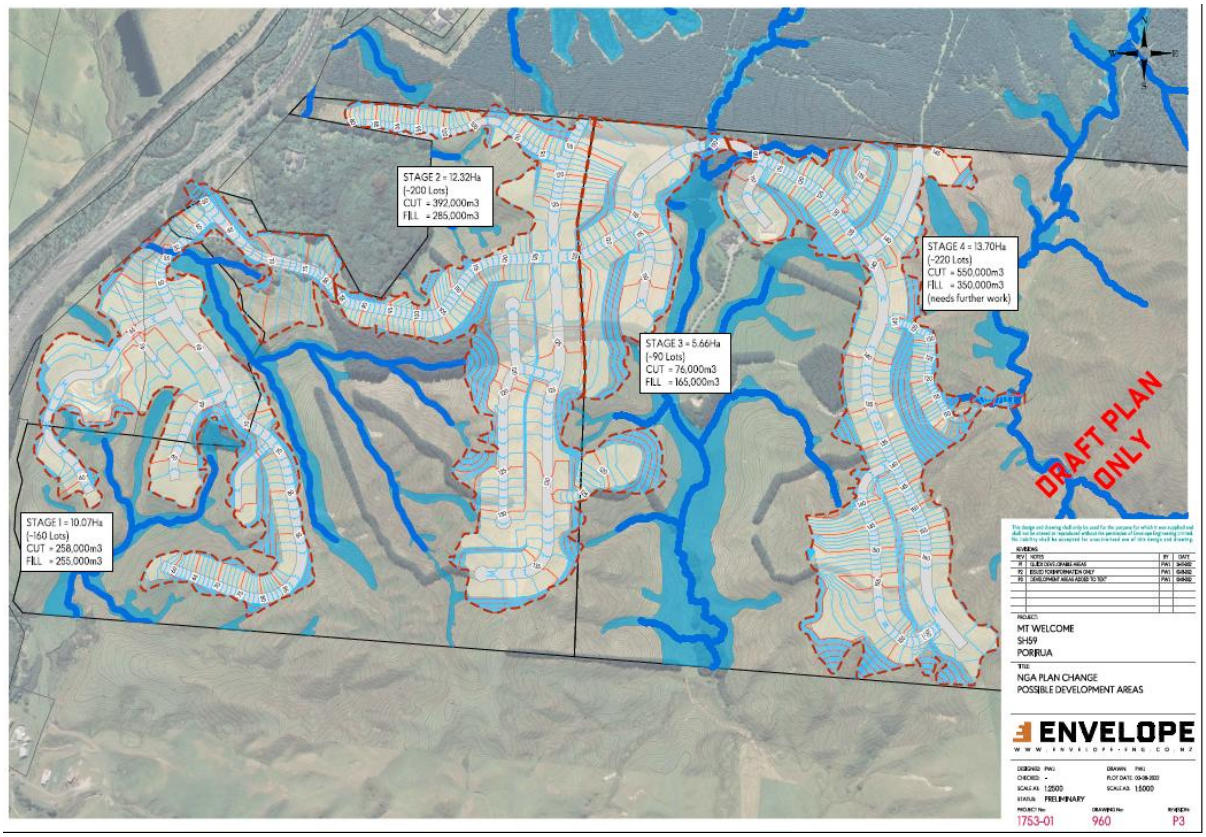

Figure 1: Concept A

This concept design resulted in:

- Yield of 660 lots
- 4665m² natural inland wetland reclamation
- 56.7ha or 1,276,000 m³ of earthworks

Assessment: While this alternative concept resulted in less wetland reclamation than the other alternative concepts below it:

- Only provides 660 lots which falls short of a viable yield for the Applicant;
- Does not provide the amount of housing anticipated by the Council that the Northern Growth Development Area (NGDA) will deliver, noting that Council's Growth Strategy anticipates 1,500 dwellings between the Muri Road and Mt Welcome site,[3] of which the Mt Welcome development is expected to bring the larger share; and
- Results in a much smaller commercial centre, so it creates a less well-functioning urban environment with regard to clause (c) of Policy 1 of the NPS-UD.

Concept A was therefore discounted by the project team.

<u>Concept B - Maximise lot yield</u>

A maximised lot yield concept was explored as shown in **Figure 2** below.

[3] Page 12, Porirua Growth Strategy 2053

Figure 2: Concept B

This concept design resulted in:

- Yield of 1265 lots
- 32,481m² natural inland wetland reclamation
- 108.6ha and 3,048,734 m³ of earthworks

Assessment: While it provided a better yield, this alternative concept:

- Results in more wetland habitat loss and would require offsetting off site due to there being insufficient space remaining on site;
- Would impact the highest value wetland as identified by the Ecological Assessment in the south-west; and
- Is less likely to return extensive cohesive meaningful wetland and stream systems with appropriate and better hydrology and long term management.

Concept A was therefore discounted by the project team.

<u>Concept C – Proposed approach</u>

The proposed scheme is shown in **Figure 3** below.

Figure 3: Concept C

This concept design resulted in:

- Yield of 949 lots
- 15,311m^2 natural inland wetland reclamation
- 81.46ha and 1,905,000m^3 of earthworks

Assessment: This concept provides an adequate yield while avoiding highest value wetlands on site and it:

- Creates better opportunities for comprehensive gully to shallow wetland systems with better mechanisms to achieve bigger, better, indigenous wetlands and streams through the stormwater retention wetlands; and
- Results in a an economically viable yield for the developer and is generally consistent with the Structure Plan and the housing yield anticipated by the Council that the Northern Growth Development Area (NGDA) and Growth Strategy seeks.

Concept C was therefore selected as the preferred option by the project team. Note that the layout of Concept C itself underwent various iterations to achieve outcomes including providing an appropriate multi-modal transport network, managing stormwater, providing for suitably placed recreation reserves, and minimising earthworks and achieving a cut/fill balance.

Conclusion

The above options assessment finds that there is no alternative practicable option to Concept C for the location of the activity within the development that achieves an economically viable yield while

achieving desired ecological outcomes. The proposal is therefore consistent with Regulation 45C(6)(b)(i).

While Concept A would result in less reclamation of existing wetlands, through the effects management hierarchy the effects of Concept C can be remedied, mitigated or offset so that this option would have equal adverse effects on wetlands as Concept A. The proposal is therefore consistent with Regulation 45C(6)(b)(ii).

Regulation 45C(6)(c) – Has the effects management hierarchy been applied to wetland reclamation?

The Ecological Assessment steps through the effects management hierarchy to address potential adverse effects of proposed works as part of the preferred option above and makes recommendations about the required offsetting where wetlands are reclaimed.

Because the wetlands being reclaimed are generally of low ecological value, these effects are assessed as "very low or less than minor adverse effect"[4].

Around half of the affected wetland area (0.69 ha or 6,900m²) is to be remedied through the development of wetland stormwater retention areas. These devices have been developed as to function as shallow wetlands which are fully vegetated but can flood at times. These wetlands will have front end treatment raingardens that provide treatment prior to the wetland.

The level of change associated with the proposed development with regard to aquatic habitat and the loss of natural inland wetland is at the low end of the level of effects, and the residual effects after management (avoidance, minimisation, remedy) have been assessed by BlueGreen Ecology as less than minor and as such do not require an offset under the effects management hierarchy[5]. Despite the above, an offset is offered for residual natural inland wetland effects in order to achieve a net positive ecological outcome.

Offsetting is proposed at a 1:1 ratio. Offsetting for the 15,311m^2 loss of natural inland wetland is provided in addition to the remedial wetlands. The offsetting areas are proposed in gullies and basins of the Taupō draining western system which are currently grazed, in poor condition, and cannot achieve better indigenous biological diversity without different management and restoration[6].

> *The basic tenet of the offset is to utilise the surrounding unaffected gullies and basins of the Taupo draining western system which are currently grazed, poor condition, natural wetlands which cannot achieve better indigenous biological diversity without different management and restoration. In doing this, off-site long term benefits are anticipated with regard to water quality entering the Taupo swamp to the west.*

[4] Refer page 38.
[5] Refer page 3.
[6] Refer page 53.

Source: Ecological Assessment (page 54)

Figure 4: Example of offsetting areas in pink

Overall, the Ecological Assessment concludes[7]:

> *… the surplus wetland created in the retention areas equates to 1.6 ha of current poor quality exotic wetlands that will be transformed into indigenous natural wetlands with appropriate fencing, riparian buffer planting, removal of stock and long term protection and maintenance.*
>
> *The total package is surplus to the offset requirement (based on a 1:1 ratio) and when conditioning, the requirement should reflect the ratio not the total area. It is suggested that the above plans and areas make ecological sense and offer flexibility to the offset plan in terms of gully extents viable in terms of actual widths and ground lengths. I.e. a precautionary approach to ensure the offset can be realised.*

The Ecological Assessment considers[8]:

> *In terms of indigenous functional protected future wetland this proposal as opposed to the status quo land use absolutely provides a net gain.*

Section 8 of the Ecological Assessment sets out specific requirements for pre-planting preparation, fencing, weed and pest management, and planting (including specific sizes and proportions of species).

[7] Refer page 54.
[8] Refer page 55.

In regard to monitoring success of the effects management hierarchy, the Ecological Assessment recommends that[9]:

> *In regard to monitoring success of the effects management, once the offset program has been enacted the project ecologist should biannually monitor the progress of the offset wetland development so as to confirm the correct species planting and establishment. This is usually a three year process and / or to 80% wetland vegetation cover of the ground. The process is the same for the remedial wetland areas.*

These recommendations have guided the planting areas that are set out in Landscape and Ecology Plans (**Appendix 23**). These plans show the types of planting that will occur in each part of the site whether it be for amenity, stormwater management, ecological buffering/offsetting or erosion and sediment control. These plans have been prepared as an overlay to the civil and scheme plans. They were designed to give effect to the Ecological Assessment and Landscape Urban Design Strategy. There are proposed conditions of consent in **Appendix 7** that provide for a plan set to be certified by PCC and GWRC, and monitoring requirements.

With these measures in place, the proposal is considered to have a less than minor effect on wetland values on site.

The proposal is therefore consistent with **Regulation 45C(6)(c).**

Clause 45C(7)(a): Is the activity occurring on land identified for urban development?

The subject site is identified for urban development in:

- Wellington Regional Future Development Strategy (prepared under the NPS-UD);
- Porirua Growth Strategy 2053; and
- Porirua District Plan.

No urban development is proposed in the portion of the site zoned Rural Lifestyle Zone. The proposal is therefore consistent with Regulation 45C(7)(a) and 45C(7)(b).

Regulation 57(2)(a) – Is there a functional need for the reclamation of rivers?

All three alternative concepts would require the reclamation of streams with regard to:

- The reclamation of part of the Taupō Stream to construct a roundabout where the stream will be diverted through a 110m long culvert that provides for fish passage; and
- The reclamation of streams where piped for the purpose of creating the retention wetlands (dams).

With regard to the reclamation of Taupō Stream, alternatives were considered for alternative site access that could avoid the culverting of the stream, however:

[9] Refer page 69.

- There is no other practicable location that provides access to the site other than where the intersection is proposed (which is the area indicated in the Structure Plan);
- The intersection is required by NZTA to be a dual-lane roundabout due to the operating speed of the corridor;
- There is insufficient space in the corridor to construct a roundabout while avoiding the stream entirely; and
- There is no space in the corridor to realign the stream so that it avoids the new roundabout.

As such, there is a functional need to reclaim this stream as avoidance would preclude the zoned use of the site.

With regard to piping sections of stream, these is a functional need to located retention dams in gullies to achieve hydraulic neutrality and avoid adverse effects on downstream receiving environments with regard to increased peak flows and erosion and scour.

As such, there is a functional need to reclaim these sections of stream as avoidance would preclude the zoned use of the site.

It should be noted that in all sections of proposed reclamation these will be culverts constructed that simulate natural habitats and provide for fish passage.

Regulation 57(2)(b) – Has the effects management hierarchy been applied to stream reclamation?

The Ecological Assessment steps through the effects management hierarchy to address potential adverse effects related to stream reclamation and makes recommendations about the required offsetting where streams are reclaimed.

With regard to the SH59 Roundabout Culvert, the Ecological Assessment calculates that 193m of perennial stream requires enhancement to offset the 110m culverting of the Taupō stream as follows[10]:

> *The offset enhancement is around 195m of stream and includes an enhancement package along the area indicated above that consists of fencing and riparian revegetation between on average 20m (topography driven) either side of the streams typical wetted width bank targeting the following species at 1m spacing (except for larger trees) and with at least 1L pant sizes.*

Figure 5 below shows where this offsetting is proposed:

[10] Refer page 56.

Source: Ecological Remediation and offsets plans (9000-series drawings)

Figure 5: Proposed Ecological Remediation and offsets (stream offsetting in yellow)

These recommendations have guided the design of Infrastructure, Landscape and Ecology Plans and the proposed conditions of consent which are set out in **Appendix 7** of this application.

With these measures in place, the proposal is considered to have a less than minor effect on stream values on site.

The proposal is therefore consistent with **Regulation 45C(6)(c).**