

Technical Note

PREPARED FOR: Commute

PROJECT: Pekapeka

BY: DATE: Steve Llovd 2/10/17 **Connectivity SSBC**

SUBJECT: ESR Screen Additional Notes

1.0 Introduction/Overview

Environmental and Social Responsibility Screens ('ESR Screen') have been undertaken for the following options for the Pekapeka Connectivity Single Stage Business Case ('Proposal')

- Option P1
- Option P2A/P5
- Option P3
- Option P4
- Option P6
- Option Te Horo

Generally speaking the Pekapeka options are not dissimilar in terms of the ESR screening.

Option P2A/P5 is differentiated by the location of the southbound on-ramp being located southward of the existing over-bridge and extending beyond the State highway 1 designation.

Similarly Options P3 & P4 extend beyond the existing State highway 1 designation being located south-westward of the existing over-bridge.

Option P4, in particular extends well beyond the existing designation and involves potential direct impact on a number of residential sites extending the interchange approximately 300m westward toward rural-residential identified sites, creating a degree of severance between those east and westward of the connection with Pekapeka Road

The Te Horo Option is differentiated for a range of matters as set out in the ESR.

A number of annotated planning maps have been included as attachments as they provide the basis and context of a range of the matters indicated in the ESR screens. These attachments follow at the end of this note.





2.0 Pekapeka Options

All the Pekapeka Options are located within the general extent of the P2O Project extent and the State highway 1 designation encompassing the existing Pekapeka Interchange.

This project is only recently completed and was subject to a complex suite of designation and resource consent conditions relating to a range of matters that potentially impact on the realisation of the Proposal. These matters include:

- Cultural Impacts
- Stormwater/Ecological & Wetland Impacts
- Offset Mitigation removal/relocation effects

A review of the Consent conditions and associated Environmental and Social Management Plans (or equivalent), and particularly the implementation and construction/post-construction phase version of such plans will necessarily inform what mechanisms will be require, if any to vary the conditions and associated plans.

On the face of it all options are likely neutral relative to each other in this regard but this can only be confirmed upon review.

3.0 Option P2A/P5 & P4

These options extend beyond the existing State highway 1 Designation. Generally speaking, in terms of the localised nature of the effects (and subject to the Stormwater/Ecological review being undertaken by AWA), this may not present a significant consenting issue.

Looking at the extent of the works on the ground it would appear that stormwater/wetland/drainage works extend beyond the designation boundary and that these works were undertaken pursuant to consents associated with the M2P Project

4.0 Option P3

Option P3 raises the same beyond designation issues as the P2AP5 and P4 Options but is additionally distinguishable from all the other Pekapeka options in that it significantly extends the overall footprint of the interchange, extending approximately 300m westward along Pekapeka Road, toward a number of residential sites, severing some to the east of the intersection of the ramp with Pekapeka Road.



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The extension toward a number of residential properties and the need to colocate the shared use path creates a range of potential noise, amenity and community and urban design effects beyond that of the other options.

5.0 Te Horo Option

This option is spatially distant from the other options. It is at least partially located within the extent of the Pekapeka to Otaki Project. Review and integration with conditions and management strategies for this project would be required to understand the potential additional effects of the option.

It is apparent that any option would likely have a greater community and social impact relative to the Pekapeka options given the spatial constraints of the current location of the Te Horo township and its ribbon development along the existing State highway 1 and the adjoining Te Horo Beach Road and School Roads. Integration with the Otaki Project would likely impact on both residential and commercial sites.

6.0 Land use/Urban and Social effects

The potential land use and urban social effects of the proposal (all options) is provided in a separate note. Such note provides a more general review of the proposal effects on adjacent and proximate land use and development potential.

7.0 Conclusion

The ESR effects of the Pekapeka options can be broadly divided into three groups of potentially greater overall effect

- Option P1 and Option P6
- Option P2A/P5 and Option P4
- Option P3

The first two groupings are broadly similar with the location of the P2A/P5 and P4 Options beyond the existing State highway designation providing a potentially greater constraint.

Option P3, with its greater extension of footprint, similarly beyond the existing designation and toward, into, and beyond a number of residentially utilised sites has a range of potential additional environmental effects beyond that of the other Pekapeka Options.



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8.0 Attachments

Attachment 1: Watercourses-Greater Wellington Regional Council

Mapping system

Attachment 2: Wellington Region Flood Hazards Map

Attachment 3: Greater Wellington Regional Council Maps-

Archaeological Discovery likelihood Identified areas of ecological value

Attachment 4: Identified areas of ecological value

Attachment 5: Watercourses Greater Wollington Bosion

Attachment 5: Watercourses-Greater Wellington Regional Council

Mapping system

Attachment 6: Wellington Region Flood Hazards Map
Attachment 7: Threatened Indigenous Environments
Attachment 8: Greater Wellington Regional Council Maps-

Archaeological Discovery likelihood



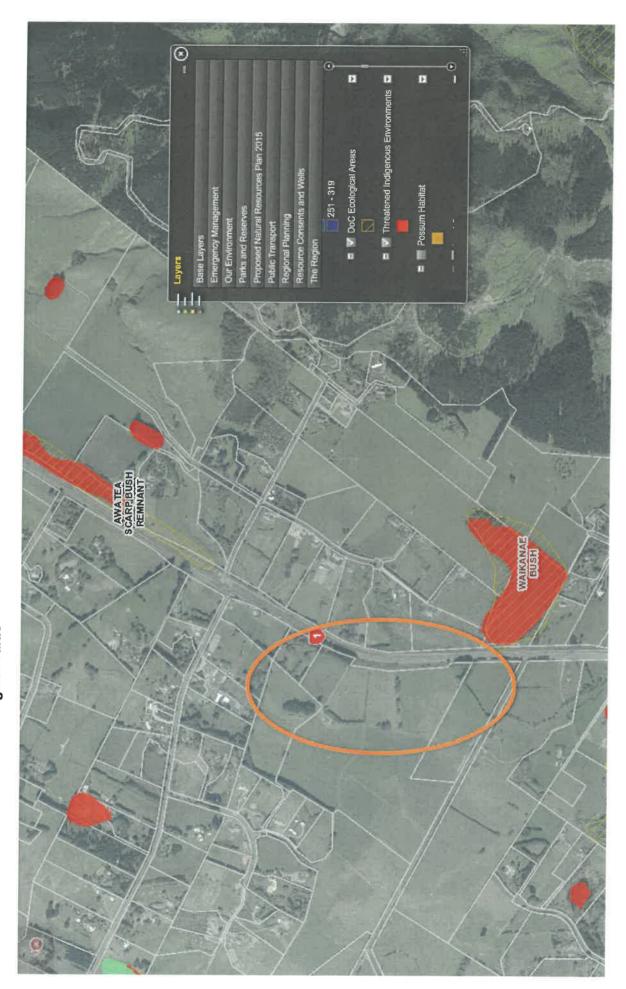
Attachment 1: Watercourses-Greater Wellington Regional Council Mapping system

Wellington Region - Flood Hazard Areas ď ass or placename

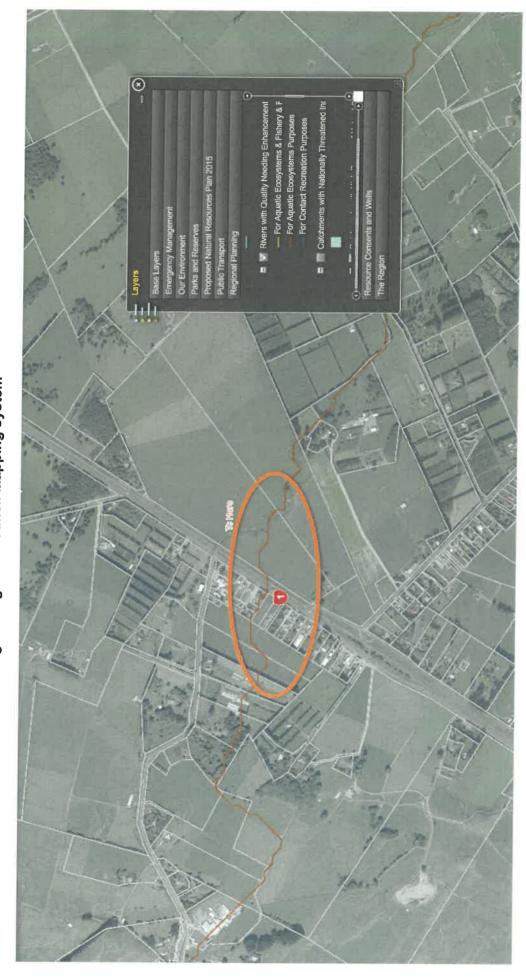
Attachment 2: Wellington Region Flood Hazards Map



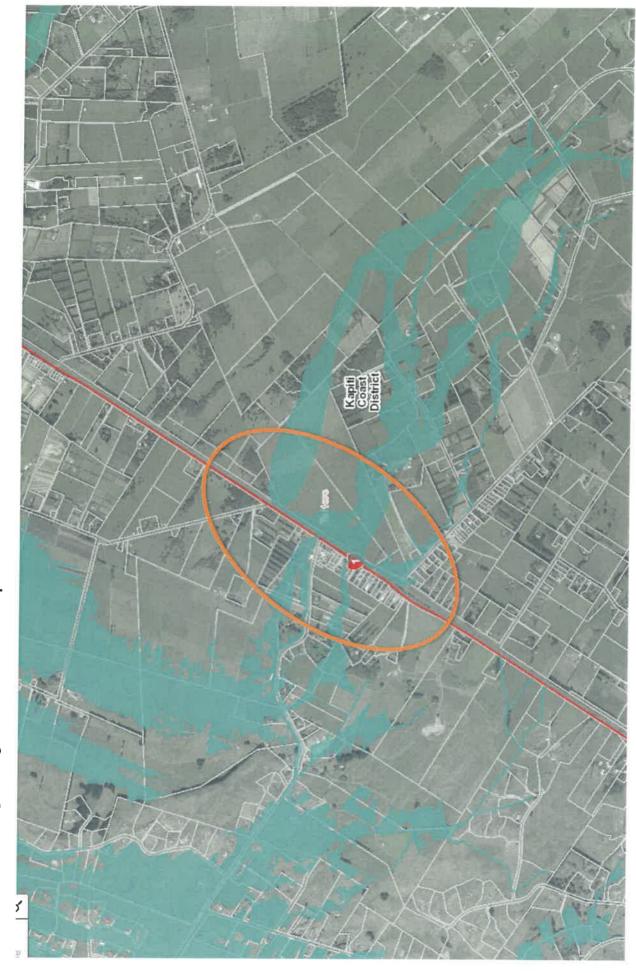
Attachment 3: Greater Wellington Regional Council Maps-Archaeological Discovery likelihood



Attachment 4: Identified areas of ecological value



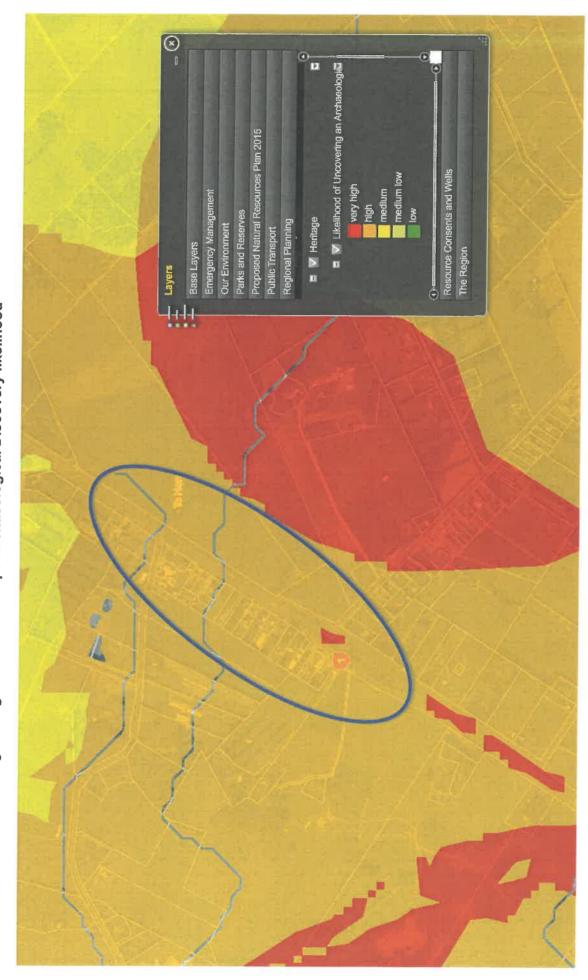
Attachment 5: Watercourses-Greater Wellington Regional Council Mapping system



Attachment 6: Wellington Region Flood Hazards Map

⊗ □ Đ = V DoC Ecological Area 201 - 225 226 - 250 251 - 319 HAUTERE = Possum Habitat MANGAON MANGA ONE BUSH B TEHORO

Attachment 7: Threatened Indigenous Environments



Attachment 8: Greater Wellington Regional Council Maps-Archaeological Discovery likelihood

Use to assess options in the Indicative Business Case



Use this screen to identify opportunities and risks and assess options for state highway projects. Complete the screen for each option to distinguish them from one another or bundle options where appropriate. Screen results will signal where technical assessments are required and provide a written record to support the alternatives assessment required for statutory applications. For further assistance contact the EUD Team.

Additional instructions and content, including information sources, to help complete the screen can be found on the Highways Information Portal Screen pages here

Refer to screen questions Decide how many times screen should be filled out (Group Options) incorporate page 2 text in IBC explanation, particularly if you answered yes to any of the questions project information and suggested information sources Complete page 2 of screen assessment of options table (Background and MCA) PROJECT LOCATION: PROJECT PURPOSE: DATE: OPTION DESCRIPTION: Pekapeka Connectivity Improvement October 2017 P1 USEFUL INFORMATION CATEGORY **OUESTION** ANSWER SOURCES What is the zoning of adjacent land? Are there any encumbrances on the land? e.g. Maori Reserve or ther reserve/covenants District/Unitary Plan Zoning Maps High density . What is the construction timeframe? G3 • NZTA MapHub Environmental and Social Risk Map- Natural Environment . • ional Plan Maps and Schedules Vill the option affect areas of the conservation estate, or areas f known significance for biodiversity or known habitats of ncommon or threatened species? . s the option in an area of potential hazard risk e.g. fault line ignificant erosion, flooding, sea level rise etc? . Will more than 0.5 hectares of vegetation be removed? . Whenthywer Planting associated with McKays to Pekapeka Project would be impacted there sites/areas of significance to Maori within 200m of the of interest? . . CULTURAL AND HISTORIC HERITAGE . Histrict Plan Maps and Schedules gional Plan Maps and Schedules • a group of archaeological sites or an area of historic built avironment (even partially) within 200m of the area of inte . • 0 • • • • Access improvement oes the option affect community cohesion and accessibility cluding vehicular connectivity on the local road network? . Are there opportunities to enhance infrastructure for, and/or improve access to, public transport and/or active modes of travel such as as walking and cycling? NZTA MapHub Environmental and Social Risk Map- Natural Environment (Scenic • URBAN AND LANDSCAPE DESIGN Regional Land Transport Plan Does the option enhance the development potential of adjacent land . Project Team Is the option located on a themed highway? Is the option part of or near a national cycle or walking route? Strategies and District Plan . Are there opportunities to enhance the urban character, landscape character and visual amenity? .



Answers and Comments Refer to the second of the help complete this part.

1. Summarize the potential environmental and social risks/impacts associated with this option. Consider short and long term risks and impacts.

Two watercourses are identified as travelling west to east across the extent of the potential project location (See Attachment 1: Watercourses). The watercourses have been modified and associated wetland works and plantings have been undertaken as part of the McKays to Pekapeka Project (M2P). Conditions associated with the M2P Project would require review, and there removal or relocation of M2P Project planting would likely be unavoidable. The location is identified as being subject to a 1%AEP flood hazard (See Attachment 2: Wellington Region Flood Hazards Map). There are understood to be offset mitigation conditions offered as part of the M2P Project that will require review in this regard. Attachment 4 indicates identified ecological areas which are located beyond the extent of all options

The location is identified as having a very high likelihood of uncovering archaeological matters (see Attachment 3: Greater Wellington Regional Council Maps-Archaeological Discovery likelihood). It is not apparent that this risk identification has accounted for the significant and extensive land disturbance and modification works undertaken pursuant to M2P. All Pekapeka options are generally located on areas disturbed by M2P earthworks and drainage/wetland works or are located on modified pasture lands.

Lovat House (Historic Place Category 2) is located approximately 1km to the north east of the location (29 Hadfield Road).

State Highway 1 (Kapiti Expressway) is a High Volume National Route pursuant to the One Network Road Classification. The proposal is for improved local connectivity improvement (direct southward connectivity to the expressway). It is not considered that connectivity will have a significant effect in terms of air quality relative to the expressway itself.

Post completion of the M2P Project, operational challenges for customers were identified at the northern end of the project. The provision of north facing ramps only with the associated limitation on overall accessibility has resulted in unforeseen manoeuvres (U-turns at Te Hapua). The proposal will improve overall accessibility for the community in the vicinity of Pekapeka. In particular, the proposal will provide full movement accessibility from the Kapiti Expressway to the local road network. The options are located adjacent the existing expressway alignment and will have no cumulative effects on community severance.

The responses above will be used in the IBC assessment of options summary table: MCA of the Option

Walking and cycling improvements have been a major and successful component of the M2P Project and any connectivity improvements will not impact on this enhanced infrastructure

impact on this enhanced intrastructure.

The M2P Project included significant ecological/landscape planting. Any removal and/or relocation of such planting should be undertaken in accord with the strategies and formal plans developed as part of M2P. If such measures are undertaken it is considered that the proposal will have no effect in terms of landscape that noticeably differs from that approved and implemented as part of the M2P Project. It is further considered that undertaking such measures will ensure the retention and enhancement of landscaping improvement as provided as part of M2P

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Incorporate the relevant comments from above into the economy, social and geography sections of the IBC assessment of options summary table.

2. What are the environmental, social integration, landscape design or urban design benefits or opportunities presented by this option? Particularly record opportunities that could be lost if not considered early in the design process,

Option P1 is located wholly within the existing State highway designation. Any works would require the removal/relocation of ecological/landscaped planting. However, such planting is only recently established and so any works could likely be re-mediated and integrated into the overall concept provided for pursuant to M2P strategies on an intermediate/longer term basis with no discernible affect on the overall landscaping and urban design benefits contemplated

3. Are there any impacts, risks or opportunities which require preliminary technical assessments to help understand risks or opportunities? Is further information required to support the development of the detailed business case or can it be left until the detailed business case/pre-implementation?

A review of the M2P Environmental and Social Management Plan (or equivalent) final version as completed at or post construction to confirm the presence of any archaeological discoveries in the vicinity of Pekapeka Interchange (given the identified risk on GWRC Maps). Storrmwater/flooding/ecological reporting being undertaken by Awa Consultants.

Completed by Steven Lloyd, Consultant Planner, Green Group Ltd

Reviewed by NZTA **Project Manager** Incorporated results into

IBC assessment of options Yes summary table?



Use to assess options in the <u>Indicative Business Case</u>

Use this screen to identify opportunities and risks and assess options for state highway projects. Complete the screen for each option to distinguish them from one another or bundle options where appropriate. Screen results will signal where technical assessments are required and provide a written record to support the alternatives assessment required for statutory applications. For further assistance contact the <u>EUD Team.</u>

Additional instructions and content, including information sources, to help complete the screen can be found on the Highways Information Portal Screen pages here

Refer to screen questions Answer screen questions using project information and suggested information sources incorporate page 2 text in IBC Decide how many times screen should be filled out (Group Options) explanation, particularly if you answered yes to any of 1 Complete page 2 of screen assessment of options table (Background and MCA) the questions PROJECT LOCATION: PROJECT PURPOSE: OPTION DESCRIPTION: Pekapeka Connectivity Improvement October 2017 P2A/P5 USEFUL INFORMATION CATEGORY OUESTION ANSWER SOURCES What is the zoning of adjacent land? Are there any encumbrances on the land? e.g. Maori Reserve or other reserve/covenants District/Unitary Plan Zoning Maps . • NZTA MapHub Environmental and Social Risk Map- Natural Environment • • Vill the option affect areas of the conservation estate, or areas I known significance for biodiversity or known habitats of ncommon or threatened species? NATURA ENVIRONMEN . s the option in an area of potential hazard risk e.g. fault lines ignificant erosion, flooding, sea level rise etc? . . Planting associated with McKays to Pekapeka Project would be impacted re there sites/areas of significance to Maeri within 200m of the • . eritage New Zealand List CULTURA AND HISTORIC HERITAGI re any scheduled, listed or other important he nuctures, within 200m of the area of interest? • . . • 0 . . • . es the option affect access to community facilities Le. lit So space etc (either temporarily or perococostly)? Access improvement oes the option affect community cohesion and accessibili cluding vehicular connectivity on the local road network? Council and Community Strategy Documents . Are there opportunities to enhance infrastructure for, and/or improve access to, public transport and/or active modes of travel such as as walking and cycling? NZTA MapHub Environmental and Social Risk Map- Natural Environment (Scenic Routes) • gional Land Transport Plan Does the option enhance the development potential of adjacent land where appropriate? • Project Team Is the option located on a themed highway? Is the option part of or near a national cycle or walking route? Strategies and District Plan •

Are there opportunities to enhance the urban character, landscape character and visual amenity?

ULD4



1. Summarize the potential environmental and social risks/impacts associated with this option. Consider short and long term risks and impacts.

Two watercourses are identified as travelling west to east across the extent of the potential project location (See Attachment 1: Watercourses). The watercourses have been modified and associated wetland works and plantings have been undertaken as part of the McKays to Pekapeka Project (M2P). Conditions associated with the M2P Project would require review, and there removal or relocation of M2P Project planting would likely be unavoidable. The location is identified as being subject to a 1%AEP flood hazard (See Attachment 2: Wellington Region Flood Hazards Map). There are understood to be offset mitigation conditions offered as part of the M2P Project that will require review in this regard. Option P2A/P5 involves works outside the existing designation and into an area south of the existing overpass identified as being subject to flooding hazard

The location is identified as having a very high likelihood of uncovering archaeological matters (see Attachment 3: Greater Wellington Regional Council Maps-Archaeological Discovery likelihood). It is not apparent that this risk identification has accounted for the significant and extensive land disturbance and modification works undertaken pursuant to M2P. All Pekapeka options are generally located on areas disturbed by M2P earthworks and drainage/wetland works or are located on modified pasture lands.

Lovat House (Historic Place Category 2) is located approximately 1km to the north east of the location (29 Hadfield Road).

State Highway 1 (Kapiti Expressway) is a High Volume National Route pursuant to the One Network Road Classification. The proposal is for improved local connectivity improvement (direct southward connectivity to the expressway). It is not considered that connectivity will have a significant effect in terms of air quality relative to the expressway itself. The location is

Post completion of the M2P Project, operational challenges for customers were identified at the northern end of the project. The provision of north facing ramps only with the associated limitation on overall accessibility has resulted in unforeseen manoeuvres (U-turns at Te Hapua). The proposal will improve overall accessibility for the community in the vicinity of Pekapeka. In particular, the proposal will provide full movement accessibility from the Kapiti Expressway to the local road network. The options are located adjacent the existing expressway alignment and will have no cumulative effects on community severance.

The responses above will be used in the IBC assessment of options summary table: MCA of the Option.

Walking and cycling improvements have been a major and successful component of the M2P Project and any connectivity improvements will not impact on this enhanced infrastructure.

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impact on this enhanced infrastructure.

The M2P Project included significant ecological/landscape planting. Any removal and/or relocation of such planting should be undertaken in accord with the strategies and formal plans developed as part of M2P. If such measures are undertaken it is considered that the proposal will have no effect in terms of landscape that noticeably differs from that approved and implemented as part of the M2P Project. It is further considered that undertaking such measures will ensure the retention and enhancement of landscaping improvement as provided as part of M2P

Incorporate the relevant comments from above into the economy, social and geography sections of the IBC assessment of options summary table.

2. What are the environmental, social integration, landscape design or urban design benefits or opportunities presented by this option? Particularly record opportunities that could be lost if not considered early in the design process.

Option P2A/P5 extends beyond the existing State highway designation and is located within an area of identified floodrisk and where works the subject of M2P consents have been undertaken. These potential technical constraints require examination as to whether they might impact on ability to be consented such that any benefits that this option otherwise might provide are not discounted on this basis.

3 Are there any impacts, risks or opportunities which require preliminary technical assessments to help understand risks or opportunities? Is further information required to support the development of the detailed business case or can it be left until the detailed business case/pre-implementation?

A review of the M2P Environmental and Social Management Plan (or equivalent) final version as completed at or post construction to confirm the presence of any archaeological discoveries in the vicinity of Pekapeka Interchange (given the identified risk on GWRC Maps). Storrmwater/flooding/ecological reporting is being undertaken by Awa Consultants.

Completed by

summary table?

Steven Lloyd, Consultant Planner, Green Group Ltd

Reviewed by NZTA **Project Manager** Incorporated results into

IBC assessment of options Yes

No

15-156 | PAGE 2



Use to assess options in the Indicative Business Case

Use this screen to identify opportunities and risks and assess options for state highway projects. Complete the screen for each option to distinguish them from one another or bundle options where appropriate. Screen results will signal will state technical assessments are required and provide a written record to support the alternatives assessment required for statutory applications. For further assistance contact the <u>EUD Team</u>.

Answer screen questions using

Additional instructions and content, including information sources, to help complete the screen can be found on the Highways Information Portal Screen pages here

Refer to screen questions

incorporate page 2 text in IBC Decide how many times screen explanation, particularly if you answered yes to any of the questions project information and suggested information sources Complete page 2 of screen should be filled out (Group Options) assessment of options table (Background and MCA) PROJECT LOCATION PROJECT PURPOSE: DATE: OPTION DESCRIPTION: Pekapeka Connectivity Improvement P3 October 2017 USEFUL INFORMATION CATEGORY **QUESTION** ANSWER SOURCES What is the zoning of adjacent land? Are there any encumbrances on the land? e.g. Maori Reser other reserve/covenants District/Unitary Plan Zoning Maps Does the option disturb previously undisturbed land? . • Are there any outstanding/significant natural features (e.g. geological or geothermal)/landscapes? NZTA MapHub Environmental and Social Rísk Map- Natural Environment . . Vill the option affect areas of the conservation estate, or are f known significance for biodiversity or known habitats of ncommon or threatened species? NATURAI ENVIRONMENT the option in an area of potential hazard risk e.g. fault lines ignificant erosion, flooding, sea level rise etc? . . are there sites/areas of significance to Maori within 200m of the rea of interest? • . CULTURAI AND HISTORIC HERITAGE re any scheduled, listed or other important her ructures within 200m of the area of interest? . . . • • • . • • • Access improvement Council and Community Strategy oes the option affect community conesion and accessib icluding vehicular connectivity on the local road network . NZTA MapHub Environmental and Social Risk Map- Natural Environment (Scenic Routes) Are there opportunities to enhance infrastructure for, and/or improve access to, public transport and/or active modes of travel such as as walking and cycling? • Does the option enhance the development potential of adjacent land where appropriate? onal Land Transport Plan ULD2 • Project Team Strategies and District Plan Is the option located on a themed highway? Is the option part of or near a national cycle or walking route? • Are there opportunities to enhance the urban character, landscape character and visual amenity? ULD4 •



1. Summarize the potential environmental and social risks/impacts associated with this option. Consider short and long term risks and impacts.

Two watercourses are identified as travelling west to east across the extent of the potential project location (See Attachment 1: Watercourses). The I wo watercourses are identified as travelling west to east across the extent of the potential project location (See Attachment 1: Watercourses). The watercourses have been modified and associated wetland works and plantings have been undertaken as part of the McKays to Pekapeka Project (M2P). However, Option P3 extends beyond the extent of M2P works. The location is identified as being subject to a 1%AEP flood hazard (See Attachment 2: Wellington Region Flood Hazards Map). Again, Option P3 extends further into this area and beyond the SH designation and involves the additional crossing of one of the identified watercourses

The location is identified as having a very high likelihood of uncovering archaeological matters (see Attachment 3: Greater Wellington Regional Council Maps-Archaeological Discovery likelihood). Although Option P3 passes through modified pasture land and more intensive rural residential sites, its location has not been the subject of previous SH works so there is a greater risk of discovery associated with works beyond the designation

State Highway 1 (Kapiti Expressway) is a High Volume National Route pursuant to the One Network Road Classification. The proposal is for improved local connectivity improvement (direct southward connectivity to the expressway). Option P3 is located adjacent to a dozen rural-residential sites, much closer than the existing SH configuration. It is not considered that connectivity will have a significant effect in terms of air quality relative to the expressway itself. Noise and amenity would be impacted to a greater level due to the closer physical proximity of this option to existing residential sites

Post completion of the M2P Project, operational challenges for customers were identified at the northern end of the project. The provision of north facing ramps only with the associated limitation on overall accessibility has resulted in unforeseen manoeuvres (U-turns at Te Hapua). The proposal will improve overall accessibility for the community in the vicinity of Pekapeka. In particular, the proposal will provide full movement accessibility from the Kapiti Expressway to the local road network. Option P3 will directly effect several rural-residential properties and will bring the interchange physically closer to other rural-residential sites. It will have a relatively greater adverse community effect than all the other Pekapeka options and will result in community severance, relative to the existing residential properties located west of the Interchange along Pekapeka Road.

The responses above will be used in the IBC assessment of options summary table: MCA of the Option.

Walking and cycling improvements have been a major and successful component of the M2P Project. Option P3 will require a re-envisioning and reconfiguration of the Shared Path and its connectivity at Pekapeka.

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reconfiguration of the snared Path and its connectivity at restapesta. The M2P Project included significant ecological/landscape planting. Any removal and/or relocation of such planting should be undertaken in accord with the strategies and formal plans developed as part of M2P. If such measures are undertaken it is considered that the proposal will have no effect in terms of landscape that noticeably differs from that approved and implemented as part of the M2P Project. It is further considered that undertaking such measures will ensure the retention and enhancement of landscaping improvement as provided as part of M2P

Incorporate the relevant comments from above into the economy, social and geography sections of the IBC assessment of options summary table.

No

2 What are the environmental, social integration, landscape design or urban design benefits or opportunities presented by this option? Particularly record opportunities that could be lost if not considered early in the design process.

Option P3 extends beyond the existing State highway designation and is located within an area of identified floodrisk. These potential technical constraints require examination as to whether they might impact on ability to be consented such that any benefits that this option otherwise might provide are not discounted on this basis.

3. Are there any impacts, risks or opportunities which require preliminary technical assessments to help understand risks or opportunities? Is further information required to support the development of the detailed business case or can it be left until the detailed business case/pre-implementation?

Option P3 involves a greater potential direct adverse community and severance effect than any other Pekapeka option. The direct and proximate effect on rural-residential properties indicates that review of any social and community reporting undertaken as part of M2P should be considered. Noise and community/social effects assessment would be required.

Completed by

Steven Lloyd, Consultant Planner, Green Group Ltd

Reviewed by NZTA Project Manager Incorporated results into

IBC assessment of options Yes summary table?



Use to assess options in the <u>Indicative Business Case</u>

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1. Summarize the potential environmental and social risks/impacts associated with this option. Consider short and long term risks and impacts.

Two watercourses are identified as travelling west to east across the extent of the potential project location (See Attachment 1: Watercourses). The Two watercourses are identified as traveling west to east across the extent of the potential project location (See Attachment 1: Watercourses). The watercourses have been modified and associated wetland works and plantings have been undertaken as part of the McKays to Pekapeka Project (M2P). Conditions associated with the M2P Project would require review, and there removal or relocation of M2P Project planting would likely be unavoidable. The location is identified as being subject to a 1%AEP flood hazard (See Attachment 2: Wellington Region Flood Hazards Map). There are understood to be offset mitigation conditions offered as part of the M2P Project that will require review in this regard. Option P4 involves works outside the existing designation and into an area west of the existing overpass which is identified as being proximate to areas subject to flooding hazard

The location is identified as having a very high likelihood of uncovering archaeological matters (see Attachment 3: Greater Wellington Regional Council Maps-Archaeological Discovery likelihood). It is not apparent that this risk identification has accounted for the significant and extensive land disturbance and modification works undertaken pursuant to M2P. All Pekapeka options are generally located on areas disturbed by M2P earthworks and drainage/wetland works or are located on modified pasture lands.

State Highway 1 (Kapiti Expressway) is a High Volume National Route pursuant to the One Network Road Classification. The proposal is for improved local connectivity improvement (direct southward connectivity to the expressway). It is not considered that connectivity will have a significant effect in terms of air quality relative to the expressway itself.

Post completion of the M2P Project, operational challenges for customers were identified at the northern end of the project. The provision of north facing ramps only with the associated limitation on overall accessibility has resulted in unforeseen manoeuvres (U-turns at Te Hapua). The proposal will improve overall accessibility for the community in the vicinity of Pekapeka. In particular, the proposal will provide full movement accessibility from the Kapiti Expressway to the local road network. The options are located adjacent the existing expressway alignment and will have no cumulative effects on community severance.

The responses above will be used in the IBC assessment of options summary table: MCA of the Option

Walking and cycling improvements have been a major and successful component of the M2P Project. Option P3 will require a re-envisioning and reconfiguration of the Shared Path and its connectivity at Pekapeka.

The M2P Project included significant ecological/landscape planting. Any removal and/or relocation of such planting should be undertaken in accord with the strategies and formal plans developed as part of M2P. If such measures are undertaken it is considered that the proposal will have no effect in terms of landscape that noticeably differs from that approved and implemented as part of the M2P Project. It is further considered that undertaking such measures will ensure the retention and enhancement of landscaping improvement as provided as part of M2P

Incorporate the relevant comments from above into the economy, social and geography sections of the IBC assessment of options summary table.

2. What are the environmental, social integration, landscape design or urban design benefits or opportunities presented by this option? Particularly record opportunities that could be lost if not considered early in the design process

Option P4 extends beyond the existing State highway designation and is located within an area of identified floodrisk. These potential technical constraints require examination as to whether they might impact on ability to be consented such that any benefits that this option otherwise might provide are not discounted on this basis.

3. Are there any impacts, risks or opportunities which require preliminary technical assessments to help understand risks or opportunities?

Is further information required to support the development of the detailed business case or can it be left until the detailed business case/pre-implementation?

A review of the M2P Environmental and Social Management Plan (or equivalent) final version as completed at or post construction to confirm the presence of any archaeological discoveries in the vicinity of Pekapeka Interchange (given the identified risk on GWRC Maps). Storrmwater/flooding/ecological reporting is being undertaken by Awa Consultants.

Stry

Completed by

Steven Lloyd, Consultant Planner, Green Group Ltd

Reviewed by NZTA Project Manager Incorporated results into

IBC assessment of options Yes summary table?



Use to assess options in the Indicative Business Case

Use this screen to identify opportunities and risks and assess options for state highway projects. Complete the screen for each option to distinguish them from one another or bundle options where appropriate. Screen results will signal where technical assessments are required and provide a written record to support the alternatives assessment required for statutory applications. For further assistance contact the <u>EUD Team</u>.

Additional instructions and content, including information sources, to help complete the screen can be found on the Highways Information Portai Screen pages here

Refer to screen questions Answer screen questions using incorporate page 2 text in IBC explanation, particularly if you answered yes to any of the questions Decide how many times screen project information and suggested information sources Complete page 2 of screen should be filled out (Group Options) assessment of options table (8ackground and MCA) PROJECT LOCATION: PROJECT PURPOSE. DATE: OPTION DESCRIPTION: Pekapeka Connectivity Improvement October 2017 P6 USEFUL INFORMATION CATEGORY QUESTION ANSWER SOURCES What is the zoning of adjacent land? Are there any encumbrances on the land? e.g. Maori Rese other reserve/covenants District/Unitary Plan Zoning Maps Does the option disturb previously undisturbed land? . . Are there any outstanding/significant natural features (e.g. geological or geothermal)/landscapes? • • Will the option affect areas of the conservation estate, or are f known significance for biodiversity or known habitats of ncommon or threatened species? NATURAI ENVIRONMENT • the option in an area of potential hazard risk e.g. fault lines, gnificant erosion, flooding, sea level rise etc? • • blyon? Planting associated with McKays to Pekapeka Project would be impacted are there sites/areas of significance to Maori within 200m of the rea of interest? . . re any scheduled, listed or other important here ructures within 200m of the area of interest? CULTURAI AND HISTORIC HERITAGI . . • 0 0 . • • • . Access improvement Council and Community Strategy Documents Does the option affect community cohesion and accessibility including vehicular connectivity on the local road network? . Are there opportunities to enhance infrastructure for, and/or improve access to, public transport and/or active modes of travel such as as walking and cycling? NZTA MapHub Environmental and Social Risk Map- Natural Environment (Scenic • Does the option enhance the development potential of adjacent land where appropriate? Regional Land Transport Plan • Project Team Is the option located on a themed highway? Is the option part of or near a national cycle or walking route? Strategies and District Plan .

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Are there opportunities to enhance the urban character, landscape character and visual amenity?



1. Summarize the potential environmental and social risks/impacts associated with this option. Consider short and long term risks and impacts.

Two watercourses are identified as travelling west to east across the extent of the potential project location (See Attachment 1: Watercourses). The watercourses have been modified and associated wetland works and plantings have been undertaken as part of the McKays to Pekapeka Project (M2P). Conditions associated with the M2P Project would require review, and there removal or relocation of M2P Project planting would likely be unavoidable. The location is identified as being subject to a 1%AEP flood hazard (See Attachment 2: Wellington Region Flood Hazards Map). There are understood to be offset mitigation conditions offered as part of the M2P Project that will require review in this regard.

The location is identified as having a very high likelihood of uncovering archaeological matters (see Attachment 3: Greater Wellington Regional Council Maps-Archaeological Discovery likelihood). It is not apparent that this risk identification has accounted for the significant and extensive land disturbance and modification works undertaken pursuant to M2P. All Pekapeka options are generally located on areas disturbed by M2P earthworks and drainage/wetland works or are located on modified pasture lands. Lovat House (Historic Place Category 2) is located approximately 1km to the north east of the location (29 Hadfield Road).

State Highway 1 (Kapiti Expressway) is a High Volume National Route pursuant to the One Network Road Classification. The proposal is for improved local connectivity improvement (direct southward connectivity to the expressway). It is not considered that connectivity will have a significant effect in terms of air quality relative to the expressway itself. The location is

Post completion of the M2P Project, operational challenges for customers were identified at the northern end of the project. The provision of north facing ramps only with the associated limitation on overall accessibility has resulted in unforeseen manoeuvres (U-turns at Te Hapua). The proposal will improve overall accessibility for the community in the vicinity of Pekapeka. In particular, the proposal will provide full movement accessibility from the Kapiti Expressway to the local road network. The options are located adjacent the existing expressway alignment and will have no cumulative effects on community severance.

The responses above will be used in the IBC assessment of options summary table: MCA of the Option.

Walking and cycling improvements have been a major and successful component of the M2P Project and any connectivity improvements will not impact on this enhanced infrastructure.

The M2P Project included significant ecological/landscape planting. Any removal and/or relocation of such planting should be undertaken in accord with the strategies and formal plans developed as part of M2P. If such measures are undertaken it is considered that the proposal will have no effect in terms of landscape that noticeably differs from that approved and implemented as part of the M2P Project. It is further considered that undertaking such measures will ensure the retention and enhancement of landscaping improvement as provided as part of M2P

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Incorporate the relevant comments from above into the economy, social and geography sections of the IBC assessment of options summary table.

2. What are the environmental, social integration, landscape design or urban design benefits or opportunities presented by this option? Particularly record opportunities that could be lost if not considered early in the design process

Option P6 is located wholly within the existing State highway designation. Any works would require the removal/relocation of ecological/landscaped planting. However, such planting is only recently established and so any works could likely be re-mediated and integrated into the overall concept provided for pursuant to M2P strategies on an intermediate/longer term basis with no discernible affect on the overall landscaping and urban design benefits contemplated

3. Are there any impacts, risks or opportunities which require preliminary technical assessments to help understand risks or opportunities?

Is further information required to support the development of the detailed business case or can it be left until the detailed business case/pre-implementation?

A review of the M2P Environmental and Social Management Plan (or equivalent) final version as completed at or post construction to confirm the presence of any archaeological discoveries in the vicinity of Pekapeka Interchange (given the identified risk on GWRC Maps). Storrmwater/flooding/ecological reporting being undertaken by Awa Consultants.

Completed by

Steven Lloyd, Consultant Planner, Green Group Ltd

Reviewed by NZTA Project Manager Incorporated results into

IBC assessment of options Yes summary table?



Use to assess options in the Indicative Business Case

Use this screen to identify opportunities and risks and assess options for state highway projects. Complete the screen for each option to distinguish them from one another or bundle options where appropriate. Screen results will signal where technical assessments are required and provide a written record to support the alternatives assessment required for statutory applications. For further assistance contact the <u>EUD Team</u>.

Additional instructions and content, including information sources, to help complete the screen can be found on the Highways Information Portal Screen pages here

Refer to screen questions

Answer screen questions using incorporate page 2 text in IBC Decide how many times screen explanation, particularly if you answered yes to any of the questions project information and suggested information sources Complete page 2 of screen should be filled out (Group Options) assessment of options table (Background and MCA) PROJECT LOCATIONS PROJECT PURPOSE: DATE: OPTION DESCRIPTION: Pekapeka Connectivity Improvement October 2017 Te Horo USEFUL INFORMATION **CATEGORY** QUESTION ANSWER SOURCES What is the zoning of adjacent land? Are there any encumbrances on the land? e.g. Maori Reserve or other reserve/covenants District/Unitary Plan Zoning Maps 0 Does the option disturb previously undisturbed land? . • Are there any outstanding/significant natural features (e.g. geological or geothermal)/landscapes? NZTA MapHub Environmental and Social Risk Map- Natural Environment . . Regional Plan Maps and Schedules Vill the option affect areas of the conservation estate, or are f known significance for biodiversity or known habitats of ncommon or threatened species? NATURAI ENVIRONMENT . s the option in an area of potential hazard risk e.g. fault lines, ignificant erosion, flooding, sea level rise etc? . Vill more than 0.5 hectares of vegetation be removed? . re there sites/areas of significance to Maori within 200m of the rea of interest? . • re any scheduled, listed or other important her ructures within 200m of the area of interest? . AND HISTORII HERITAG . . 0 • . • • . Permanent and temporary puncil and Community Strategy . Are there opportunities to enhance infrastructure for, and/or improve access to, public transport and/or active modes of travel such as as walking and cycling? NZTA MapHub Environmental and Social Risk Map- Natural Environment (Scenic Routes) • Does the option enhance the development potential of adjacent land where appropriate? Regional Land Transport Plan • LANDSCAPE Project Team Is the option located on a themed highway? Is the option part of or near a national cycle or walking route? Strategies and District Plan . Are there opportunities to enhance the urban character, landscape character and visual amenity?

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1 Summarize the potential environmental and social risks/impacts associated with this option. Consider short and long term risks and impacts.

A River (quality requiring enhancement) passes through the Te Horo location between Te Horo Beach Road and School Road. (See Attachment 5: Watercourse). The location is identified as being subject to a 1%AEP flood hazard (See Attachment 6: Wellington Region Flood Hazards Map). There are also areas on native vegetation at the northern extent of Te Horo (See Attachment 7: Threatened Indigenous Environments)

The location is identified as having a high likelihood of uncovering archaeological matters (see Attachment 8: Greater Wellington Regional Council Maps-Archaeological Discovery likelihood). The general area is however in modified pasture lands with a number of residential and commercial and urban uses located a the nexus of Te Horo Beach Road, School Road and SH1, suggestive of land having been disturbed in modern times.

State Highway 1 is a High Volume National Route pursuant to the One Network Road Classification. This location will be subject to the Pekapeka to Otaki Project which is soon to commence construction. This Project which is soon to commence construction. This Project which is soon to commence environment at Te Horo. Additional access at this location in this context is likely to have negligible effects in terms of human health.

Te Horo township will be subject to significant change to its pedestrian and traffic layout pursuant to the implementation of the Pekapeka to Otaki Project. A strip township along the current State highway alignment and the adjoining Te Horo Beach and School Road would likely be further adversely impacted by additional road infrastructure at this location. Local road network to Expressway access will be available in reasonable proximity to both the north and the south and infrastructure location would likely directly impact on the residential and township sites. A generally adverse effect in terms of community cohesion would be expected

The responses above will be used in the IBC assessment of options summary table: MCA of the Option.

Walking and cycling improvements have been a major and successful component of the M2P Project and further connectivity and extension is expected through the Pekapeka to Otaki Project. Greater access might provide for improved development potential more widely but would be balanced by potential direct adverse effects on the existing township (both residential and commercial). Consideration of landscaping and design would need to be integrated into that contemplated for the Pekapeka to Otaki Project

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Incorporate the relevant comments from above into the economy, social and geography sections of the IBC assessment of options summary table,

2. What are the environmental, social integration, landscape design or urban design benefits or opportunities presented by this option? Particularly record opportunities that could be lost if not considered early in the design process.

Comprehensive consideration of pedestrian and community cohesion would be required to provide additional connectivity at the Te Horo township location given the the form and proximity of the existing township along State highway 1 and Te Horo Beach Road and School Roads located on either side of the Pekapeka to Otaki alignment.

3. Are there any impacts, risks or opportunities which require preliminary technical assessments to help understand risks or opportunities? Is further information required to support the development of the detailed business case or can it be left until the detailed business case/pre-implementation?

Stormwater/flooding/ecological reporting being undertaken by Awa Consultants. Integration of accidental discovery and cultural and archaeological protocols developed as part of the Pekapeka to Otaki Project would be critical to informing and integrating the provision of ramps at this location.

Completed by

Steven Lloyd, Consultant Planner, Green Group Ltd

Reviewed by NZTA Project Manager Incorporated results into

IBC assessment of options Yes summary table?