

APPLICATION TO MINISTRY OF TRANSPORT PIPELINE PROTECTION ZONE UNDER THE SUBMARINE CABLES AND PIPELINES PROTECTION ACT 1996

**PREPARED FOR HASTINGS DISTRICT COUNCIL, NAPIER CITY COUNCIL AND
PAN PAC FOREST PRODUCTS LIMITED**

AUGUST 2021

MITCHELL
DAYSH



Please find **enclosed** a Joint Application and supporting information to establish a Pipeline Protection Zone (PPZ) in Hawke Bay at three separate locations in favour of the Hastings District Council, the Napier City Council and Pan Pac Forest Products Limited (hereafter 'the operators').

The Application has been **prepared** pursuant to Section 12 of the Submarine Cables and Pipelines Protection Act 1996.

To:		Ministry of Transport – Te Manatū Waka PO Box 3175 Wellington New Zealand Attention: Paul Fistonich - Resilience and Security Email: p.fistonich@transport.govt.nz
From:		Hastings District Council Private Bag 9002 Hastings 4156 New Zealand Attention: David MacKenzie – Wastewater Manager Email: davidm@hdc.govt.nz
		Napier City Council Private Bag 6006 Napier 4142 New Zealand Attention: Gary Schofield – Team Leader 3 Waters Strategic Planning Email: garys@napier.govt.nz
		Pan Pac Forest Products Limited Private Bag 6203 Napier 4142 New Zealand Attention: Reece O'Leary – Environmental Manager Email: reece.o'leary@panpac.co.nz

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This disclaimer shall apply notwithstanding that the report may be made available to Ministry of Transport and other persons for an application for permission or approval to fulfil a legal requirement.

QUALITY STATEMENT

PROJECT MANAGER	PROJECT TECHNICAL LEADS	
Joint Application Project Team	Grant Russell (Stantec NZ) and Anita Anderson (Mitchell Daysh Ltd)	
PREPARED BY	October 2019	REVISED
Grant Russell (Stantec NZ) – for Napier City Council and Hastings District Council Anita Anderson (Mitchell Daysh Ltd) – for Pan Pac Forest Products Limited		August 2021
CHECKED BY	September 2020	August 2021
Joint Application Project Team		
REVIEWED BY	October 2020	August 2021
Joint Application Project Team		
APPROVED BY	December 2020	August 2021
Joint Application Project Team on behalf of Napier City Council, Hastings District Council and Pan Pac Forest Products Limited		

EXECUTIVE SUMMARY

The Hastings District Council, Napier City Council and Pan Pac Forest Products Limited are operators of critical wastewater pipelines that discharge treated wastewater to Hawke Bay.

The Hastings District Council and Napier City Councils operate separate community wastewater plants at East Clive (Hastings) and Awatoto (Napier). Pan Pac Forest Products Limited operate their wastewater plant from their site at Whirinaki (North of Napier).

The three operators have designed and constructed key strategic and critical assets and contributed significant financial resources to maintain and operate their respective pipelines.

In collaborating to prepare this Joint Application under the Submarine Cables and Pipelines Protection Act 1996, the operators are now taking a proactive response to provide an additional legal mechanism to identify and gazette a pipeline protection zone above their respective pipelines.

The structural damage to the pipeline through third party accidental damage from commercial inshore fishing vessels and their equipment striking the pipeline is a real possibility. Damage to these pipelines would result in significant financial, environmental, economic, cultural and social costs and impacts.

The Hastings District Council already has in place a pipeline protected zone, approximately 300 metres in length for the diffuser, gazetted under the Submarine Cables and Pipelines Protection Act 1996. They now wish to extend this zone to provide for the entire pipeline, a length of approximately 2950 metres. The importance of this pipeline is further given to the 1600 metre pipeline for Napier City Council and 2600 metres pipeline for Pan Pac Forest Products Limited.

A number of 'drivers', risks and reasons for the operators to gazette a pipeline protection zone include:

- Outfalls are expensive assets to build and operate.
- Anecdotal evidence of damage from fishing industry is valid.
- Damage to the pipeline is financially expensive and time consuming to investigate and repair.
- Protection under the Submarine Cables and Pipelines Protection Act 1996 is part of managing the risk along with other measures.
- Reduce any effect on the environment from a discharge from any part of the pipeline that is not within the appropriate location and therefore providing correct mixing and dilution.
- Provide for compliance with resource consents and other obligations.
- Prevent high cost of repair.
- Limited availability of specialists to undertake investigation and repair work.

In addition:

- Hastings District Council's outfall is already partially protected under the Submarine Cables and Pipelines Protection Act 1996.
- Pan Pac Forests Products Limited wish to reduce risks to relationships with stakeholders, community and to the company's reputation as an exporter, to business relationships and investors.
- Pan Pac need to provide security for the asset and enable the continuity of business at the site and ensure that the operation does not need to be shut down while any damage is being repaired.

The majority of community and stakeholder engagement provided positive feedback on the process for gazetting the pipeline protection zones.

The operators are taking a prudent and precautionary approach and in preparing this Joint Application have collaborated to ensure a consistent approach is adopted for the gazetted process required for their respective pipeline protection zones within Hawke Bay.

Hastings District Council, Napier City Council and Pan Pac Forest Products Limited

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Structure of this Joint Application

This Joint Application is presented in two Volumes.

Volume One

Volume One encloses the Joint Hastings District Council, Napier City Council and Pan Pac Forest Products Limited Submarine Cables and Pipelines Protection Application as required under Section 12 of the Submarine Cables and Pipelines Protection Act 1996.

It is presented in two parts:

Part 1 Pipeline Protection Zone Applications

Part 1 provides 'stand-alone' applications from the Hastings District Council, Napier City Council and Pan Pac Forest Products Limited.

Part 2 Supporting Information

Part 2 provides an introduction and sites, pipeline meaning and the Joint Applications purpose, joint statements and information common to all three operators. Information provided may be additional supporting commentary over and above that set out under Section 12 of the Submarine Cables and Pipelines Protection Act 1996. These include:

- Joint position statement;
- Legal framework;
- Risk considerations and risk management;
- Consultation and engagement;
- Site location and Pipeline Protection Zone; and
- Processing the Pipeline Protection Zone application.

Appendices are attached to provide further supporting information.

Parts 1 and 2 are to be read and processed in conjunction with one another.

Volume Two

Volume Two encloses a series of background reference and reports relevant to the Joint Application.

Volume One

PART ONE: PIPELINE PROTECTION ZONE APPLICATIONS

The following Pipeline Protection Zone (PPZ) Applications have been prepared for:

- Hastings District Council (HDC);
- Napier City Council (NCC); and
- Pan Pac Forest Products Limited (Pan Pac).

The Applications have been prepared and attached as separate individual applications to assist the Ministry of Transport process a PPZ for each operator with its respective site and location.

Application for Hastings District Council

1. The area to be protected – Pipeline Protection Zone (PPZ)	<p>The PPZ shall commence at a point from the low-water mark to 200 metres passed the end of the existing pipeline; a PPZ of 2950 metres. The PPZ shall be 400 metres wide, with the pipeline being more or less in the centre of the PPZ.</p> <p>Area [Identifier: Hastings District Council]</p> <p>All that area bounded by a straight line commencing at the low-water mark in position:</p> <p>Point 1 1938128.69, 5610857.80 (NZTM GD2000), then to position;</p> <p>Point 2 1941107.45, 5612001.11 (NZTM GD2000), then to position;</p> <p>Point 3 1941299.95, 5611647.23 (NZTM GD2000), then to position;</p> <p>Point 4 1938321.96, 5610502.94 (NZTM GD2000) low water mark, then to the position of commencement.</p> <p>Refer Appendix A for details.</p> <p>Note: The Hastings District Council has an existing smaller protection area over part of its pipeline. This portion of the protected area is for the 300 metre diffuser. This will be revoked upon the gazette of this application.</p> <p>Refer: Submarine Cables and Pipelines Protection Order 2009 (SR 2009/41), Schedule Protected Areas – Area 9 Hawke Bay.</p>
2. The proposed construction of the cable or pipeline	None. The pipeline is an existing structure.
3. The purpose for the cable or pipeline	To discharge final combined (domestic and trade waste) treated wastewater via a 2750 metre pipeline.
4. The timeframe for laying the cable or pipeline	Not applicable.
5. The consultation undertaken by the operator to satisfy the requirements of Section 12(2) of the Act	Refer Appendix C.

Suggested variations ¹	exemptions or	<p>In the area described in the Schedule under the heading 'Area [insert Identifier: Hastings District Council] – Hawke Bay' subclause (1)² does not apply to the following:</p> <ul style="list-style-type: none"> (i) to ships that are being used for research carried out by or for the Ministry of Fisheries, as long as the research is carried out without directly or indirectly attaching any of the ships involved to the seabed, whether by anchoring or by any other means. (ii) a recreational fishing vessel and small watercraft traversing the area; (iii) a ship being used for any repair, maintenance or service of the pipeline and associated parts, valves and components; (iv) a ship entering the pipeline protection zone for monitoring, sampling, research and planned or unplanned (as a result of an accident) maintenance and inspection purposes; (v) anchoring of those ships for those purposes set out in (ii) and (iii) above; and (vi) gathering of kaimoana / seafood.
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¹ Under Section 12(3) of the Submarine Cables and Pipelines Protection Act 1996, the Order in Council may apply differently for different ship types or types of fishing operation. Any exemptions or variations from the standard prohibitions under the Act that may arise as a result of consultation with the fishing industry should be addressed in the application as well.

² Under the Submarine Cables and Pipelines Protection Order 2009, subclause (1) reads: 'The areas described in the Schedule are protected areas for the purposes of the Submarine Cables and Pipelines Protection Act 1996 in respect of all ships'

Application for Napier City Council

1. The area to be protected - Pipeline Protection Zone (PPZ)	<p>The PPZ shall commence at a point from the low-water mark to 200 metres passed the end of the existing pipeline; a PPZ of 1600 metres. The PPZ shall be 500 metres wide, with the pipeline being more or less 200m from the southern boundary of the PPZ. This is to allow for replacement of the pipeline in the future.</p> <p>Area [Identifier: Napier City Council]</p> <p>All that area bounded by a straight line commencing at the low-water mark in position:</p> <p>Point 1: 1936961.70, 5615892.50 (NZTM GD2000), then to position;</p> <p>Point 2: 1938565.97, 5616047.80 (NZTM GD2000), then to position;</p> <p>Point 3: 1938610.98, 5615548.02 (NZTM GD2000), then to position;</p> <p>Point 4: 1937005.96, 5615397.64 (NZTM GD2000), low water mark, then to the position of commencement.</p> <p>Refer Appendix A for details.</p> <p>Note: This PPZ is 'future proofing' a wider gazetted area over the existing pipeline, being 1400 metres, to provide for the potential replacement of its pipeline as noted below.</p>
2. The proposed construction of the cable or pipeline	<p>The pipeline is an existing structure. However, the Napier City Council may be replacing its pipeline in the future (potentially over the next 10 years, subject to consultative procedures, permissions and approvals under the Local Government Act 2002 and Resource Management Act 1991). Replacement of the pipeline is likely to be parallel to the existing pipeline on the northern side. An additional 100m of width in the PPZ is included under this application on the northern side of the existing pipeline to allow for a replacement parallel pipeline up to 1400 metres.</p>
3. The purpose for the cable or pipeline	<p>To discharge treated wastewater via a 1400 metre pipeline, with potential to replace the existing pipeline parallel for a length of 1400 metres.</p>
4. The timeframe for laying the cable or pipeline	<p>Subject to the consultative procedures, permissions and approvals under the Local Government Act 2002 and Resource Management Act 1991.</p>
5. The consultation undertaken by the operator to satisfy the requirements of Section 12(2) of the Act	<p>Refer Appendix C.</p>

Suggested variations ³	exemptions or	<p>In the area described in the Schedule under the heading 'Area [insert Identifier: Napier City Council] – Hawke Bay' subclause (1)⁴ does not apply to the following:</p> <ul style="list-style-type: none"> (i) to ships that are being used for research carried out by or for the Ministry of Fisheries, as long as the research is carried out without directly or indirectly attaching any of the ships involved to the seabed, whether by anchoring or by any other means. (ii) a recreational fishing vessel and small watercraft traversing the area; (iii) a ship being used for any repair, maintenance or service of the pipeline and associated parts, valves and components; (iv) a ship entering the pipeline protection zone for monitoring, sampling, research and planned or unplanned (as a result of an accident) maintenance and inspection purposes; (v) anchoring of those ships for those purposes set out in (ii) and (iii) above; and (vi) gathering of kaimoana / seafood.
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³ Under Section 12(3) of the Submarine Cables and Pipelines Protection Act 1996, the Order in Council may apply differently for different ship types or types of fishing operation. Any exemptions or variations from the standard prohibitions under the Act that may arise as a result of consultation with the fishing industry should be addressed in the application as well.

⁴ Under the Submarine Cables and Pipelines Protection Order 2009, subclause (1) reads: 'The areas described in the Schedule are protected areas for the purposes of the Submarine Cables and Pipelines Protection Act 1996 in respect of all ships'

Application for Pan Pac Forest Products Limited

1. The area to be protected - Pipeline Protection Zone (PPZ)	<p>The PPZ shall commence at a point from the low-water mark to 200 metres passed the end of the existing pipeline; a PPZ of 2600 metres. The PPZ shall be 400 metres wide, with the pipeline being more or less in the centre of the PPZ.</p> <p>Area [Identifier: Pan Pac Forest Products Limited]</p> <p>All that area bounded by a straight line commencing at the low-water mark in position:</p> <p>Point 1 1935393.58, 5633939.83 (NZTM GD2000), then to position;</p> <p>Point 2 1937736.99, 5632941.87 (NZTM GD2000), then to position;</p> <p>Point 3 1937580.50, 5632573.75 (NZTM GD2000), then to position;</p> <p>Point 4 1935237.47, 5633571.55 (NZTM GD2000), low water mark, then to the position of commencement.</p> <p>Refer Appendix A for details.</p>
2. The proposed construction of the cable or pipeline	None. The pipeline is an existing structure.
3. The purpose for the cable or pipeline	<p>To discharge treated process wastewater from a pulp mill, sawmill, landfill and water treatment plant via a 2400 metre pipeline.</p> <p>Refer Appendix B for details specific to the operations of Pan Pac.</p>
4. The timeframe for laying the cable or pipeline	None.
5. The consultation undertaken by the operator to satisfy the requirements of Section 12(2) of the Act	Refer Appendix C.

Suggested exemptions or variations ⁵	<p>In the area described in the Schedule under the heading 'Area [insert Identifier: Pan Pac Forest Products Limited] – Hawke Bay' subclause (1)⁶ does not apply to the following:</p> <p>(i) to ships that are being used for research carried out by or for the Ministry of Fisheries, as long as the research is carried out without</p>
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⁵ Under Section 12(3) of the Submarine Cables and Pipelines Protection Act 1996, the Order in Council may apply differently for different ship types or types of fishing operation. Any exemptions or variations from the standard prohibitions under the Act that may arise as a result of consultation with the fishing industry should be addressed in the application as well.

⁶ Under the Submarine Cables and Pipelines Protection Order 2009, subclause (1) reads: 'The areas described in the Schedule are protected areas for the purposes of the Submarine Cables and Pipelines Protection Act 1996 in respect of all ships'

	<p>directly or indirectly attaching any of the ships involved to the seabed, whether by anchoring or by any other means;</p> <p>(ii) a recreational fishing vessel and small watercraft traversing the area;</p> <p>(iii) a ship being used for any repair, maintenance or service of the pipeline and associated parts, valves and components;</p> <p>(iv) a ship entering the pipeline protection zone for monitoring, sampling, research and planned or unplanned (as a result of an accident) maintenance and inspection purposes;</p> <p>(v) anchoring of those ships for those purposes set out in (ii) and (iii) above; and</p> <p>(vi) gathering of kaimoana / seafood.</p>
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PART TWO: SUPPORTING INFORMATION

1. Introduction and Sites

Hastings District Council (HDC), Napier City Council (NCC) and Pan Pac Forest Products Limited (Pan Pac) are operators and holders of long-term coastal permits, obtained under the Resource Management Act 1991. The activities authorised by the coastal permits are to occupy the coastal marine area and to discharge treated domestic and / or processed treated industrial wastewater from their respective wastewater treatment plants into Hawke Bay.

All three operators have designed and constructed key strategic and critical assets and contributed significant financial resources to maintain and operate their respective submarine pipelines.

The submarine pipelines (hereafter referred to as 'pipelines') within Hawke Bay and the infrastructure associated with them are regionally significant and critical infrastructure assets to the Hawke's Bay economy.

Over recent years, the operators have experienced accidental damage to their submarine pipelines and as a result had to undertake extensive investigations and repairs to their respective assets as discussed in section 7 below, and in the full reports attached in Volume 2.

The pipelines are as follows:

- The HDC 2750 metre outfall pipeline and diffuser discharging final combined (domestic and trade waste) treated wastewater.
- The NCC 1400 metre outfall pipeline and diffuser discharging treated domestic and industrial wastewater.
- The Pan Pac 2400 metre outfall pipeline and diffuser discharging treated process wastewater from the pulp mill, sawmill, landfill and water treatment plant.

Figures 1-1 to 1-3 show the HDC, NCC and Pan Pac Plants and the indicative pipelines heading out to Hawke Bay. Appendix A shows the respective plant pipelines in detail.



Figure 1-1 HDC Wastewater Treatment Plant and indicative direction of pipeline

The length of the HDC that is the subject of this application is 2750 metres, which includes a 300 metre diffuser.



Figure 1-2: NCC Wastewater Treatment Plant and indicative direction of pipeline

The length of the NCC that is the subject of this application is 1400 metres, which includes a 400 metre diffuser.



Figure 1-3 Pan Pac Forest Products Limited and indicative direction of pipeline

The length of the Pan Pac Forest Products pipeline subject of this application is 2400 metres, which includes a 400 metre diffuser.

2. Submarine Pipelines

Under the Submarine Cables and Pipelines Protection Act 1996 (SCPPA) the following interpretation relevant to this Joint Application include:

'pipeline' means 'a pipeline used or intended to be used for the conveyance of gas (including natural gas), petroleum, oil, water, or any other mineral, liquid, or substance; and includes all fittings, pumps, tanks, appurtenances, or appliances used in connection with a pipeline'.

'submarine pipeline' means; 'a pipeline that lies beneath the high sea or the territorial sea of New Zealand or the internal waters of New Zealand'.

The three pipelines subject to this joint application meet these meanings.

It is acknowledged by the operators that the pipelines were originally constructed prior to the enactment of the SCPPA, although the installation of replacement or extended pipelines have occurred since the inception of SCPPA.

3. Purpose

The operators in a collaborative manner decided to prepare a Joint Application under the SCPPA with the view to define an agreed 'Pipeline Protection Zone' (PPZ) for their respective pipelines, located on the seabed of Hawke Bay.

This Joint Application seeks to establish a PPZ in Hawke Bay at three separate locations in favour of the HDC, NCC and Pan Pac, the three operators of pipelines located within the marine environment of Hawke Bay.

They are jointly applying for protection of their respective submarine pipelines under the SCPPA to provide additional legal protection, through the Order In Council gazette process, of their infrastructure assets.

The corridor above the pipelines is referred to as the Pipeline Protection Zone (PPZ).

4. Pipeline Protection Zone Issue Statements

For the purposes of this Joint Application, the operators jointly agreed upon key PPZ Issue Statements. These form the foundation for seeking a PPZ for the respective pipelines.

1. That the gazetted pipeline would as one legal mechanism aim to prevent third party damage to these regional significant and critical infrastructure assets.
2. Structural damage to the pipeline through third party accidental damage from commercial vessels and their fishing equipment striking the pipeline is a real possibility, and in the event of this occurring has the potential to result in significant financial, environmental, economic, cultural and social costs and impacts.
3. The operators have invested significant financial resources⁷ from the public and private sector and have a duty of care:
 - a) to ensure the integrity of the assets are maintained and operate in an efficient and effective manner;
 - b) to maintain a sound reputation and environmental compliant system for operating a pipeline for authorised discharges to Hawke Bay;
 - c) to provide a cost-effective wastewater service to the community that meets the required level of service for both present and future customers (HDC and NCC); and
 - d) to understand and mitigate the risks to the pipelines and that structural damage due to impact loads from commercial boating activities (anchoring, trawling) is one of the biggest risks to the pipelines.
4. Pipeline damage can result in adverse environmental effects and compliance breaches which may impact the sensitive marine receiving environment and cause public health risks. This results in coastal

⁷ Operational and maintenance costs are available upon request.

permits and relevant standards and terms being non-compliant, and thus the risk of prosecution from the Hawke's Bay Regional Council for an unconsented discharge.

5. Damage to the pipeline can cause significant disruption to the operational requirements of the respective assets, the continuity of business (Pan Pac) and result in a reduced level of service (HDC and NCC) to the wider community, mana whenua and stakeholders including ratepayers and industry users.
6. Minimising damage to the pipelines, extends the life of the pipeline and reduces ongoing maintenance costs.
7. There are significant costs and time implications to mobilise a specialised dive and salvage team to investigate, repair and report upon damage to the undersea components of the pipeline.⁸
8. Education and awareness of the PPZ is to be carried out in a complementary manner alongside the regulatory approach of the SCPPA.

5. Legal Framework

This application is prepared under Section 12 of the SCPPA.

It has been confirmed with the Ministry of Transport that there are no standard form nor templates available when lodging an application to establish a protected area under Section 12 of the SCPPA. The key Sections of Section 12 as set out on the Ministry of Transport website⁹ follow:

"In lodging an application to establish a protected area under Section 12 of the SCPPA the following information is provided:

1. the area to be protected
2. the proposed construction of the cable or pipeline
3. the purpose for the cable or pipeline
4. the timeframe for laying the cable or pipeline
5. the consultation undertaken by the operator to satisfy the requirements of Section 12(2) of the Act

Under Section 12(2), the Minister shall not make a recommendation under subsection (1) unless—

- (a) the Minister has first consulted with such persons or organisations representing such persons as the Minister considers would be affected by the order; and*
- (b) those persons or organisations have a reasonable opportunity to make submissions to the Minister; and*
- (c) the Minister has regard to those submissions.*

The key person deemed affected by this order are in the main considered to be commercial inshore fishers. Overall, the intent of the order is to ensure a 'no anchor zone' and exclusion of commercial vessels as means to avoid potential damage to the pipeline.

The order does not intend, nor should it have any impact upon, mana whenua and their customary marine interest, rights and practices. To that end the applicants:

- do not have any intention to restrict tangata whenua access in the proposed pipeline protection zone,
- has no intention nor sought to claim this area; and
- there is absolutely no intention nor any desire to restrict customary rights / purposes / access,

Appendix C of this application documents the engagement and consultation approach adopted.

Ongoing correspondence from Ministry of Transport officials has also taken place throughout the preparation of this Joint Application.

Under Section 12(4) of the SCPPA, the Order in Council may apply differently for different ship types or types of fishing operation. Any exemptions or variations from the standard prohibitions under the Act that may arise as a result of consultation with the fishing industry should be addressed in the application as well.

⁸ Dive inspection costs, associated with investigations, repair and reporting costs are available upon request.

⁹ <http://www.transport.govt.nz/sea/protectingunderseacables/>

As noted earlier, Part One of this application will set out the information required by the Ministry of Transport to make a determination for each respective operator and the proposed pipeline to be protected within the PPZ. Part Two of this Joint Application provides joint statements and information common to all three operators.

5.1 Relationship to Section 11 and 12 of the Submarine Cables and Pipelines Protection Act 1996

It is important to note that existing protection and restrictions relating to the pipelines are afforded under Section 11 of the SCPA and would apply regardless of any gazetted PPZ.

Section 11 refers to [an] 'offence to damage submarine cable or pipeline – wilfully or negligently', and the subsequent fine of up to \$250,000. In other words, it is an offence to damage a pipeline under section 11 whether or not there is a gazetted protection area in place. However, this is inadequate because it does not appropriately mitigate the risk of damage to the pipeline. Pipeline owners need to suffer damage to the pipeline first before action can be taken. This is a reactive response and does not mitigate any risk of damage.

The PPZ is a preventative approach to mitigating the risk of damage to the pipelines. By prohibiting certain activities in the gazetted area, the risk of damaging the pipeline from commercial activities decreases significantly.

In practical terms, Section 12 provides an additional defined and gazetted area whereby NCC, HDC or Pan Pac may use the additional provision of the protection and offences sought under Section 12 applicable only to commercial fishing boats. The intention of the gazetted protection areas is to prohibit these commercial vessels from trawling and anchoring, in the gazetted protection areas. The intention is that commercial vessels along with recreational fishing vessels are still able to traverse the gazetted area, alongside vessels entering the gazetted protection areas for monitoring and sampling research purposes.

6. Existing Hastings Pipeline (300m diffuser) Protected

A section of the outfall pipeline, namely the 300-metre diffuser has an existing smaller gazette protection area over part of this pipeline. The co-ordinates for the zone are recorded on the Submarine Cables and Pipelines Protection Order 2009 (SR 2009/41), Schedule Protected Areas – Area 9 Hawke Bay.¹⁰

This demonstrates the previous SPPCA process, and the subsequent gazettal of this section of pipeline has been successfully submitted, accepted and processed. According to the Ministry of Primary website¹¹, this order had an effective start date of 9 March 2009.

It is envisaged that this existing gazette area would be revoked upon the gazette of this application in relation to the Hastings pipeline or the HDC application can be simply 'added' to the above and thus increase the gazette area to include the remainder of the pipeline up to the foreshore area.

7. Risk Considerations

The risk considerations are noted below, and further noted throughout this Joint Application and supported by the attachments, and include:

1. The structural risk to the pipeline through accidental damage by vessels or their fishing equipment striking the assets and structural damage resulting in a pipe break due to impact loads from commercial boating activities (anchoring, trawling) is one of the biggest risks to the pipelines¹².
2. A pipe break will cause significant disruption the normal operation of all the respective WWTPs and negatively impact the environment.
3. Damage to the pipeline can cause significant disruption to the operational requirements of the respective assets.

¹⁰ Submarine Cables and Pipeline Protection Order 2009: 4 - SCPP1008

¹¹ <https://data-mpi.opendata.arcgis.com/datasets/submarine-cables-and-pipelines-protection/explore?location=-16.207553%2C0.000000%2C2.68>

¹² HDC reported an alleged 'strike' incident in July 2016. Repairs have been completed on the pipeline.

4. A pipe break will significantly impact the continuity of business (Pan Pac), the environment (HDC & NCC) and reduce the level of service to the wider community. Aside from the ongoing operational, environmental and compliance needs, the operators are mindful of the costs, the effects on the continuity of business (Pan Pac) and the reduced level of service to the wider community, mana whenua and stakeholders including ratepayers and industry users if the pipelines are damaged by vessels or their fishing equipment.
5. Environmental, cultural, social, including health and safety and public health, and economic considerations are intertwined and are linked to discharging on the beach or near the foreshore or continuing to discharge through the broken pipe will have these negative impacts because it's not discharging at the consent location.
6. There are significant costs to mobilise a specialised dive team to investigate the damage to the undersea components of the pipeline and in the repair of any damage¹³. Additionally, there are significant costs associated with ongoing additional maintenance and inspections to ensure the integrity of repairs. There are also significant costs and environmental impacts associated with the length of time it takes to carry out repairs safely and the opportunity cost associated with work as costs are needed to be refocussed from other projects.
7. The operators have significant assets and investments associated with the pipelines located within the marine environment. Table 8-1 shows at a high-level the asset and financial investment value of the marine located infrastructure.

Table 7-1 High level asset and financial investment value of the marine located infrastructure

Operator	Infrastructure Asset and Length	Replacement Value	Operational and Maintenance Costs
Hastings District Council	Pipeline – 2.75 km	\$ 55.0M (Note A)	\$ TBD
Napier City Council	Pipeline – 1.4 km	\$ 40M (Note B)	\$1.4M
Pan Pac Forest Products Limited	Pipeline – 2.4 km	\$ Refer (Note C)	\$ TBD

Notes: A. Long Term Plan 2050/51.

B. Long Term Plan 2021/31.

C. TBA – if applicable.

7.1 Managing the Risk

Faced with the possibility of the above risks and the elevated risk of further damage to the pipelines, the three operators began to investigate options associated with stringent mechanisms or processes to protect the assets from future damage.

Below and throughout the report and attached as Volume 2 is evidence of damage to the operators pipelines other than that caused by extreme weather events or age.

Information on the probability of damage occurring through actual events (or suspected), or the volume and type of vessel traversing or anchoring near the cables is discussed at length in this report and provides sufficient evidence that significant risk of damage to the pipeline from vessels anchoring or fishing is a real risk and that the pipeline protection is justified.

As reported upon in the report 'Hastings Outfall Risk Assessment', when compared to other risk elements, there is a high probability of an impact load (i.e. trawler) on the pipeline. As previously noted, structural damage due to impact loads from commercial boating activities (anchoring, trawling) is one of the biggest risks to the pipeline. Further, as reported in the Hastings Outfall Pipeline Inspection report (20 September 2019), the HDC pipeline has experienced damage to three joints from what was suspected to be a trawler, with complete failure of one joint that caused a visible discharge plume approximately half-way along the outfall. Repairs were carried out in 2016 to seal the pipeline with titanium bands at each of the three damaged joints.

It is considered that the damage could have only been caused by an impact load and the only likely impact load is from trawling activities. At the time of preparing this joint application, it was noted by NCC that the only evidence of damage to NCC's pipeline in recent times may be attributable to fishing nets

¹³ High level estimate for a worst-case scenario for time and costs.

around the diffusers, cleared during dive inspections¹⁴, ¹⁵, and damage to the pipeline where the cause is not clear.

As noted in the inspection reports most of the 'evidence' is usually 10+m below sea level, and in waters due to turbidity somewhere close to zero visibility. Pipeline condition assessment is often undertaken by feel only.

The burden of proof that a certain type of vessel traversing or anchoring near the pipeline has always been a difficult and vexed issue faced by the operators. Anecdotal suggestions¹⁶ has been the initial source of evidence provided to the operators that trawlers and their fishing equipment have been traversing above the pipelines, thus potentially causing an impact load on the pipeline¹⁷. As noted above, the operators are well aware of the provisions within the SPPCA under section 11. This Joint Application is to further regulate through the identification of a gazetted area of those pipelines that fall under a protection area over part of this pipeline. As to the burden of proof, it is difficult to catch them in the 'act' of causing damage. In a transport analogy it is similar to a car accident where the vehicle is still drivable after the event and 'leaves the scene'. As to the context of this joint application, any commercial fishing vessel that causes damage is below water and not necessarily picked up until the next drone or dive inspection is carried out.

The operators are taking a prudent and precautionary approach. The multi-million-dollar infrastructural assets are entrusted into the operators care, role and responsibility. They have approached this joint application with the high-level duty of care and have taken all reasonable measures to protect, maintain and operate these assets. The operators consider it good practice asset management to mitigate the risks as much as possible. The proactive response by the operator is to prevent the incident through this legal mechanism, insofar as to formally gazette the area above the pipeline as a protected pipeline zone rather than not identifying the protected pipeline zone on maritime charts.

It is acknowledged that the some of the damage may be attributable to pipeline age, weather events, original construction issues, unknown or attributed incidence due to commercial fishing practices dragging equipment along and across the pipeline. While other circumstances and events may damage the pipelines, the operators are taking a prudent and precautionary approach to gazette the area above the pipelines as an additional regulatory mechanism to identify and protect this area.

The matter of the investigation process and the suspected cause of the leak and overall asset security is now discussed. The cause of the damage was due to an impact load which most likely would have been caused by commercial boating activities. There is no other likely cause, the suspected causes of the leaks may be attributable to fishing equipment from trawlers being dragged across the sea floor and striking the pipeline.

The operators have found it difficult to prove conclusively that fishing equipment from trawlers is the only reason for potential damage. However, evidence provided by way of emails and photographs have provided alleged incidences where trawlers have traversed the area above the pipeline. Current laws and regulations are considered ineffective and provide little deterrent to offenders. The cost to prosecute will typically outweigh any costs awarded as a result of a successful prosecution should a decision be found in favour of the Harbourmaster.

Currently the Maritime Transport Act 1994 for buoy placement/navigation requirements under Section 65 - Unsafe use of the vessel under Martine Transport Act 1994, is not considered a significant deterrent in the event of damage to a pipeline.

The PPZ under the SCPPA provides further deterrents for people, companies and organisations to damage the pipeline assets by legally excluding them from the areas / zone around and above these pipelines. Furthermore, as discussed earlier, sections 1118 and 1519 provide additional legal protection and higher level of fines and prosecution.

¹⁴ Napier Outfall Leak and Diffuser Inspection and Repairs (NO0101 010220) 25 January – 1 February 2020, page 4.

¹⁵ Napier Outfall Leak and Diffuser Inspection and Repairs (NOLD01 050520) 30 April – 5 May 2020, page 4.

¹⁶ Per.coms. from local inshore commercial fisher, K. Warr (12 March 2021).

¹⁷ Redacted email attached in Volume 2 - Background Reference and Reports.

¹⁸ Every person commits an offence and is liable on conviction to a fine not exceeding \$250,000 who -

(a) wilfully or negligently either damages, or causes or permits a ship or equipment belonging to a ship to damage, a submarine cable or submarine pipeline; or

(b) is the owner or master of a ship that is used in the commission of an offence against paragraph (a).

¹⁹ Every person who commits an offence against Section 13 is liable on conviction, -

(a) to a fine not exceeding \$100,000, if -

Education and awareness will be the non-statutory approach adopted by the operators. This will be via the normal channels of communications including social media, websites, notices to mariners and recreational and commercial fisher meetings.

7.2 Hastings District Council - risk overview

As discussed above, coupled with the existing pipeline diffuser section that is already gazetted, HDC have as set out in this Joint Application proposed to provide a wider and longer gazette area to protect their pipeline asset. It is important to note, and as referred to in this report, HDC already have in place a gazette area, approximately 300 metres in length. This joint application is to extend that area to the foreshore and along with the other operators strongly convey that this extended area will provide a further legal mechanism to protect this critically important infrastructure.

The rationale for the extended pipeline protection zone is a reflection on the need to protect this significant infrastructure for HDC. Any damage to the entire length of the pipeline has the potential to negatively impact the local community, including industrial trade waste users and the coastal environment as well as causing considerable disruption to the operation of the Wastewater Treatment Plant.

It is noted that damage to the Hasting's pipeline may result in considerable disruption to the operation of the Wastewater Treatment Plant. We have provided further information as to whether this will have an impact on water accessibility or wastewater storage.

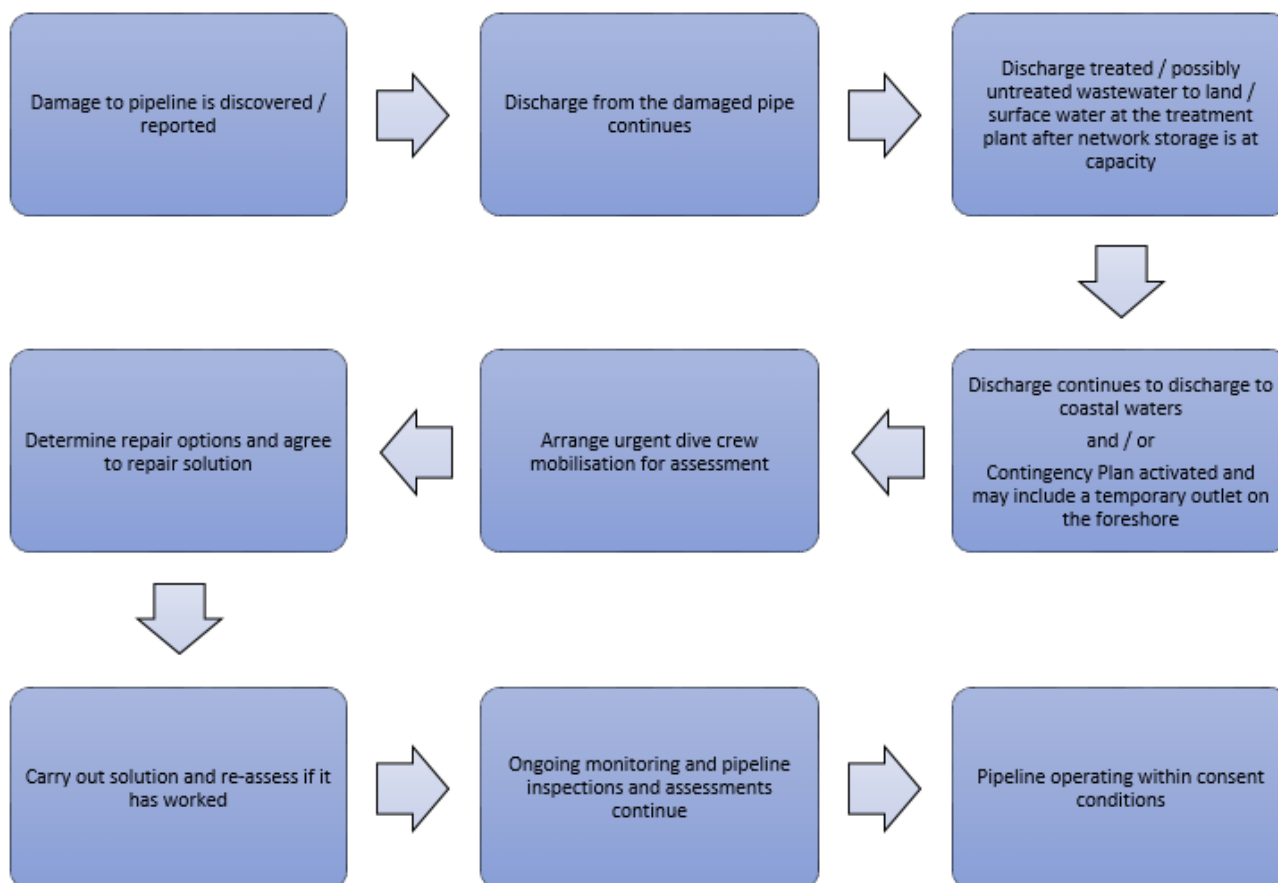
A disruption to the operation of the Wastewater Treatment Plant will have no direct impact to water accessibility. It will however have a significant impact upon wastewater storage. The Hastings WWTP has the capacity to store up to 2-3 hours of wastewater within the chambers and infrastructure pipes located within the Plant. Once those assets reach capacity, the untreated wastewater that has not been processed via the biological trickling filter tanks will begin to 'back-up' within the reticulated wastewater network. The wastewater network are the reticulated pipes that convey wastewater, generated from both domestic households and industrial activities, such as food processing. Overflows of untreated wastewater is a significant public health risk and poses adverse environmental effects to the receiving environments, such as streams and waterways.

If the pipeline was damaged, we would continue to discharge through the broken pipe until the dive team have been mobilised to inspect and repair the pipe. During inspection and repairs treated wastewater will be discharged via the emergency beach outfall. This has a significant impact on the beach users and potentially the environment. While we are discharging through the emergency beach outfall there is an elevated risk of discharging wastewater of a lesser quality to the beach impacting public health and the environment if we were to have any additional failures at the WWTP.

This impact would be similar with NCC and Pan Pac as well, unless for some reason the outfall is blocked by the damage. In which case there would be an emergency discharge to land after the wastewater network storage is used up, until the blockage is removed, or new outlet is created.

In terms of significant damage on the pipelines a priority set of actions need to take place. These are shown in the following schematic diagram:

-
- (i) the offence was committed in the course of conducting an activity for the purpose of producing a commercial gain;
or
 - (ii) a ship, which is used for an activity that has, as its predominant purpose, the making of a commercial gain, was used in the commission of the offence;
- (b) to a fine not exceeding \$20,000, if the offence was committed, otherwise than in any of the circumstances specified in paragraph (a).



Throughout the disruption, ongoing inspections and works all relevant authorities and officials, including regional and local councils, mana whenua authorities and Ministry of Health need to be informed of the inspection, assessment and repair programme and overall progress leading to a fully operational pipeline.

The wider impact be on the community if the Wastewater Treatment Plant were to be disrupted for a sustained period of time is noted below.

A key risk assessment report, 'Hastings Outfall Risk Assessment' prepared for HDC in September 2020 related to the submarine section of the outfall pipeline and provided a risk assessment to assist with the planning of future renewals and intervention works. This pipeline has experienced damage to three joints from what was suspected to be a trawler, with complete failure of one joint that caused a visible discharge plume approximately half-way along the outfall. Repairs were carried out in 2016 to seal the pipeline with stainless steel bands at each of the three damaged joints. A report prepared by HDC for the HBRC 'Repair Report on the leak on the Hastings WWTP Main Outfall Pipeline' was prepared in July 2017.

The most significant impact applicable to all pipeline operators is related to the cost of investigation, optioneering of the most practicable and affordable solution, undertaking the repairs, cost of increased maintenance and inspections, and to a lesser degree the potential reduction of the potential life of the pipeline²⁰. Inevitably this is expenditure that is taken away from other priority projects – the opportunity cost. The potential of ongoing consent conditions breaches and non-compliance is possible. This can be negated through robust monitoring, notification and reporting to the regulatory authorities as required.

The impact on the community has been shown to be very minimal with the past leaks, largely due to them being partial leaks and not complete pipe breaks. The location of the break along the extent of the pipeline, of any type (full or partial) in the first quarter of the pipe would have the biggest impact on beach users and foreshore (refer to outfall risk assessment report for the details).

Although it is possible that the Hastings pipeline could have a complete pipe break due to damage from boats it is expected there would be multiple failures. As set out in the HDC report 'Hastings Outfall Risk Assessment' (dated 18 September 2020) the identified failures are:

²⁰ Cost estimates for optioneering, repairs, maintenance and inspections are available upon request.

- Failure of the rubber rings at the joints
- Corrosion/rupture of the post tensioning wires
- Internal/External degradation of the concrete wall
- Failure of the anchoring blocks
- Corrosion of the reinforcing wires
- Open Joints
- Damage to the pipe due to impact (e.g. boats)
- Failure of GRP & titanium collars
- Failure of rubber rings
- Failure of the manholes.

If the worst case did occur (full pipe break at quarter length) the outfall will need to shut down for an extended period of time, this will require HDC to discharge treated wastewater using the emergency beach outfall to avoid overflowing raw and untreated sewage in the network.

The outfall can only be shut down for a maximum of 2 - 3 hours. Any longer and there is a high risk of overflowing at the WWTP or in the reticulated wastewater network. Under this scenario there would be a "real" impact on the community, including beach users, mana whenua and local hāpu, and potentially the urban and residential environment if the overflow occurred in the network. The scale and degree of environmental including potential overflows of untreated wastewater to streams and waterways and potential public health impact would be dependent on the duration of the overflow and the response time to remediate the overflow. As with the view expressed below shutting the WWTP down would be a disproportionate response considering the likely low level of public health or environmental risk posed by the discharge of the treated wastewater at the shoreline.

For the NCC pipeline, the outfall can currently be shut down for up one to three hours at a time while any repairs are carried out, as there is limited wastewater storage available, but this will depend on a number of factors, such as network flow rates, and weather.

As shown in the schematic diagram, if it is determined that the pipeline damage is within coastal waters then mobilisation of an inspection vessel and dive crew is required. The procurement of these services may take weeks / months. Once on site and an assessment of damage is completed, (subject to sea and weather conditions) and a solution identified and carried out. Procured.

Regarding Pan Pac, and as reported upon in the appended Pan Pac report, refer Appendix B, it is noted that Pan Pac and HBRC staff also discussed options for stopping the discharge in the first few days of the pipeline leak of September 2018. These discussions indicated that the only option available for Pan Pac to immediately stop the discharge for any length of time was to shut down the pulp mill, with flow on consequences across Pan Pac's operations such as effecting the performance of the biological treatment system. The HBRC concluded that shutting the mill down was disproportionate in light of the likely low level of public health or environmental risk posed by the discharge of the treated wastewater at the shoreline.

7.2.1 Recycled Water to the Local Community

In responding to the query regarding recycled water to local communities for any purpose from the Plant, at the present time, the Hastings WWTP does not supply recycled water to local communities. This WWTP provides an innovative and culturally responsive approach to treating final combined wastewater, generated from domestic households and industrial trade waste prior to it passing across rakahore (rock channel) before being discharged out the long ocean outfall pipeline. Similarly with NCC, they do not currently recycle wastewater. NCC would need to invest in a higher level of wastewater treatment before it would be considered safe enough to do so. The NCC Treatment Plant Masterplan does consider options for reuse of water, however this is unlikely to be a total solution. This is not currently funded in the 30 year LTP for NCC.

7.2.2 Environmental Impacts due to disruption

In responding to the query regarding whether a disruption and environmental impacts and wastewater disposal or treatment it is noted that should a disruption to the normal wastewater flows occur or require the need to treat the discharge differently, this would be a fundamental shift away from the cultural and

environmental basis that has led to the existing consented discharge of final combined wastewater to Hawke Bay.

Generally, discharge to land or fresh water would require much higher levels of wastewater treatment before discharge, so the impacts would be relatively greater than the current ocean discharges. Improving treatment quality requires significant investment, design and construction time. Given the volumes, there is unlikely to be any other short term treatment options given the investment required and construction time for such a solution.

Using NCC as an example, transporting wastewater by larger tanker for example Hastings to Napier or vice versa, a large tanker estimated at 10m³ would be full. This is based on the NCC average dry weather flow of 350 L/s in 2 minutes factoring in travel (6.8km) and unloading time would require potentially around 20 tankers operating full time. This is logistically difficult given space constraints at both WWTP sites and is considered to be unpracticable.

Longer term discharge to land is only a partial, and if practicable would only be a solution in summer only. The NCC's current treatment plant site is flood prone, and both the HDC and NCC WWTP are low laying in relation to the coast and close to groundwater, without significant improvement to the treatment process.

Turning to how will the other operators function if they had to stop discharging via their outfall to undertake repairs, previous repairs have been carefully planned with the network operators and divers to ensure that works can be undertaken within the storage capacity of the treatment plant and network. These had the relative luxury of time. The repairs included designing staged approach to repairs to allow for the storage window. Undertaking works during low flow periods such as at night and weekends, trialling shutdowns and contingency planning.

In the Hastings context the final combined wastewater would need to be discharged through the short shoreline outfall and / or the beach overflow chamber. Both discharge points are consented. The HDC management response includes undertaking all operations in accordance with Contingency Use Management Plans and discussion with the Medical Officer of Health.

In the Napier and Pan Pac context wastewater would enviably 'back-up' within their respective reticulated wastewater networks and at some stage cause an overflow either within the plant and/or into public spaces such as roads and waterways, some of which are sensitive environments.

As with the HDC scenario discussed above, the scale and degree of environmental and potential public health impact would be dependent on the duration of the overflow and the response time to remediate the overflow of potential untreated wastewater.

7.2.3 Reported Incident

On 22 July 2016 Regional Council monitoring staff reported a plume of final combined wastewater discharging into Hawke Bay located part way along the pipeline. The leak was located approximately 1200 metres out to sea, near the mid-point of the outfall pipeline, at a water depth of approximately 8 metres.

Once the reported incident was brought to the attention of the Wastewater Treatment Manager and the Hawke's Bay District Health Board a series of steps were carried out to better identify the source and cause of the plume discharging at that location. This involved the identification and location of the leak.

7.2.4 Identification and Location of the Leak

The source of the plume was confirmed to be a leak in the main pipeline pipe joint. The leak was found approximately 1200 metres offshore, at a midway point along the pipeline. This was confirmed following a dive inspection shortly after the leak was reported. The pipeline lies approximately 8 metres below the surface of the coastal water and is approximately one metre embedded within the seabed.

7.2.5 Initial Repair Response

The Hastings District Council (HDC or Council) commissioned maintenance divers to investigate and repair the leak on 17 August 2016, however that attempt was unsuccessful. A second attempt made on 26 August 2016 slowed the flow but did not stop it. HDC commissioned OCEL, marine engineering experts, to assist with developing a repair methodology which involved:

- Investigation dive
- Air scour to expose pipe joint

- Remove old pipe joint band
- Replace with new stainless-steel band

When carrying out the above repair the divers discovered steel supports beneath the pipe. The diver's halted works in case the steel supports were providing structural support from some earlier works. A temporary band was installed to stem the discharge from the joint. The installation of some support piles and strops for vertical support with the pipe excavated beneath were carried out with the intention to continue to have the outfall functioning.

7.2.6 Final Repair Response

The repair was subsequently completed on 10 November 2016.

Unknown engineering and 'as-built' information with the pipeline, developing a repair method, inclement weather and the need to ensure the safety of the dive and surface water crew hindered a more rapid response to investigate and repair the leak. HDC took a cautious and thorough approach to ensure a robust design, repair methodology and importantly ensure the safety of the dive repair teams.

7.2.7 Assessment of Risk to Public Health

Following the notification of the leak, Council commissioned a public health risk assessment.²¹

A microbial risk assessment conducted as part of the WWTP consent granted in 2014 concluded that;

'the average risk of infection is less than the 'Low observed adverse effects level' (LOAEL) where there is a detectable increase in risk level above the threshold for reported illness – equivalent to an average probability of five illnesses in every 100 exposures (i.e. between 1% and 5%)'.

In the context of the 2014 consent and this pipe leak at a location approximately the 1200 metres offshore, the public health risk assessment report (September 2016) states:

"The development of a leak at approximately the mid-point of the ocean outfall has changed the risk profile slightly in that the proportion of treated wastewater flow discharged at least 2,450m from shore has decreased from 100% to 97%, with the remaining 3% of flow being released 1,200m from shore. Despite this change, the risk of infection remains low for the following reasons:

- *While a measurable increase in the concentration of microorganisms is expected in the immediate vicinity of the leakage site, the effect on water quality further afield at the bathing beaches of Haumoana and Te Awanga, and a mussel bed at Te Awanga, will be far less, and probably not detectable.*
- *The leak has occurred during the winter period when the incidence of swimming, surfing and other primary contact recreational activities is low, as is the incidence of shellfish collection, which has greatly reduced the risk of exposure."*

7.2.8 Renewal

Renewal for the submarine section of the outfall is set for 2050/51 in the Long-Term Plan at a cost of \$55,000,000. Due to the inherent risks with an aging critical asset, condition assessments and joint renewals have been budgeted for from year 2031/32 to 2052/51 at a total cost of \$5.55m, this does not include inspections/repairs normally carried out by New Zealand Dive and Salvage (NZDS).

It would be fair to say that as an asset ages the condition of the pipeline also deteriorates thereby increasing the likelihood of failure and thereby overall risk of failure as time goes on. Any damage sustained from an inshore fishing vessel is highly likely to impact the overall cost and life of the asset through reactive repairs additional condition assessments and additional ongoing monitoring. The increase in costs and risk will likely reduce the potential life of the asset requiring renewals funding to be brought forward.

²¹ Assessment of public health risks associated with a leak in the Hastings WWTP main outfall pipeline (28 September 2016), prepared by MWH New Zealand Limited for Hastings District Council.

7.2.9 Risk Profile and Mitigants

The Hastings District Council Outfall Risk Assessment Report (September 2020) provided the following risk profile and mitigation and treatments to manage the risk.

Risk	Damage to the pipe due to impact load (e.g. boat)
Description / Cause / Consequence	There is a risk of an anchor or drag net hitting the pipeline causing failure. E.g., breaking open a hole through the concrete or fibreglass collar, pulling the pipeline out of alignment, damaging the external concrete surface, damage to the anchor plates. The consequence of the risk is effluent leakage causing a plume, putting excessive stress on the post tensioned wires and joints, corrosion of reinforcing wires to compromising the structural integrity of the pipeline.
Mitigation and Treatment	A mitigation technique would be to extend the current navigation exclusion zone along the length of the pipeline. With additional navigation buoys along the pipe route. Another mitigation could be to provide rock armour/ or concrete mat protection over high-risk locations.

Pre-mitigation scores for risk in three scenarios and their average				
Risk	End	Midway	Quarter Way	Average
Damage to the Pipe due to Impact Load (e.g., boat)	10	12	20	14
Post-mitigation scores for risk in three scenarios and their average				
Damage to the Pipe due to Impact Load (e.g. boat)	4	6	10	7

The top risk identified was damage to the pipe due to impact load (i.e. anchor strike to pipeline), scoring a pre-mitigation score of 14. The average post-mitigation score significantly dropped to 6.67, rounded to a whole number of 7. This means by introducing or applying the post-mitigation measures the risk and subsequent score is halved. This Joint Application is a key mitigation measure to reduce the risk of an anchor or drag net hitting the pipeline causing failure.

In addition to the above, the HDC Risk Assessment Report sets out in details of the risk assessment of future renewals and intervention works for the HDC pipeline. The full risk register can be found in Appendix C of the HDC Risk Assessment Report, a copy of this report forms part of the supporting information for this Joint Application. Thus, the top risk identified within the pre-mitigation score with damage to the pipe due to impact load, scoring a pre mitigation score of 14. The average post-mitigation score significantly dropped to 6.67 if the mitigation techniques were adopted. This Joint Application is a key mitigation technique to achieving the post-mitigation score of 6.67.

In regard to the risk associated with 'damage to the pipe due to impact (e.g., boats), and aside from the approach set out in this Joint Application for a gazette area above the pipeline a rock armour/ or concrete mat protection over high-risk locations was identified is another mitigation measure.

The HDC has at this stage opted to extend the current navigation exclusion zone to run along the length of the pipeline, coupled with stricter enforcement. As set out in the HDC Risk Assessment Report, it was recommended that further study to determine if mitigation such as rock protection are warranted.

The report goes on to conclude that damage to the pipe due to impact loads is one of the biggest risks of damage and failure to the pipeline.



Figure 7-1 Image of trawler board

One mitigation technique would be to extend the current navigation exclusion zone to run along the length of the pipeline, coupled with stricter enforcement. This is the reason why Hastings District Council partnering with NCC and Pan Pac have prepared this Joint Application.

HDC also identified additional navigation buoys should be installed along the pipe route. The other mitigation technique would be to provide rock armour or concrete mat protection over areas that are at high risk of being hit.

Costs for NZDS outfall inspection and leak repair over the 2010/20 year was \$167,707 and in 2020/21 is \$127,060.

The seabed may not be suitable for rock armouring as it is largely sand and soft substrates around the pipelines. Solid structures can tend to sink over time. Any physical impediment put in place for the fishing industry also limits options for the operators of those pipelines. It would add another level of complexity, capital cost, maintenance, consenting and compliance requirements. Adding further obstructions on the seabed is not considered the best practicable option.

7.3 Napier City Council – risk overview

NCC conducted an underwater pipeline inspection from 25 January to 1 February 2020. This inspection discovered a leak approximately 700m along the pipeline. A follow-up underwater pipeline inspection and repair occurred from 30 April to 5 May 2021. Copies of these reports are attached to Volume 2.

Multiple leaks are addressed on the Napier City Council website regarding the NCC pipeline. The causes of these leaks (wear and tear or collision damage) and the current leakage state of the pipelines are discussed below. As noted on the NCC website <https://www.napier.govt.nz/our-council/news/article/1411/wastewater-outfall-pipe-repairs-no-easy-or-quick-fix-says-ncc>, "A leak at a fibreglass joint in the pipe about 700m offshore and approximately two metres under the seabed surface was discovered in August 2018 and NCC had been monitoring the situation while working on a solution. Then a second smaller leak was found and reported upon at approximately 630m from shore in April this year (2020). Divers inspected the second site shortly after Alert Level 4 (2020) was lifted and found that this was the site of an old repair that had been damaged by something, such as an anchor. There are two smaller leaks at this site. In providing further details to the matters raised concerning information on the NCC website the following is provided:

- The consultation for the PPZ occurred during June and July 2020. All known leaks on the Napier wastewater pipeline have been repaired as of February 2021.
- The fibreglass joint appears (700m leak) to be a repair over an older existing repair, the likely cause of the most recent leak is believed to be age as the leaks were coming from seals between sections of the fibreglass joint.
- The cause of the original leak at 630m is not clear. However, NCC can say the leak was at a previous historical repair band which had deteriorated. The leak was relatively small and not always obvious

from drone inspections. When the repair band was removed, there was an obvious hole near the top of the pipe.

- A repair was also completed in 2018 at the 70m mark. This was a small hole in the top of the pipe and was able to be fixed with a stainless-steel band around the pipe. The cause of the damage at this location is unknown.

Following discussions with the Director of City Services, Lance Titter who has been with NCC for a number of years, he is aware of a specific case where a trawler had its nets and ropes caught on pipeline diffusers at the end of the pipeline. This occurred over 20 years ago.

As previously noted above assigning a cause to pipeline damage can be multi-faceted due for example, pipeline age, weather events, original construction issues, unknown or attributed incidence due to commercial fishing practices dragging equipment along and across the pipeline.

The repair project did take longer than a month as once the site was investigated further the original planned solution was not going to work. This speaks to the difficulty in accessing the site, that is 12m below sea level, sea conditions, weather conditions with limited visibility, wearing drive gear and sometimes working below seabed level. The lower part of the pipeline is buried, only once the pipeline support structure was constructed could the site be excavated underneath the pipeline to understand what was there and then determine a solution. From a technical viewpoint, once the leaks were repaired, NCC engaged MetOcean to examine three scenarios compared to the 'normal' consented discharge²² scenario. While there are many scenarios that could occur, three scenarios were examined and modelled²³.

Scenario 1: existing outfall diffuser location (1.5km).

Scenario 2: pipe break at (700m) where our current leak is.

Scenario 3: wastewater plume at 2.5km outfall length (possible future).

Tracer simulations were undertaken to investigate the dispersion of water discharge While the modelling is considered relatively coarse the summary noted that the *'the pipe break scenario has the greatest impact within the coastal area'*.

The key outcome is the potential risk to coastal waters, and with it the impacts to the community, including effects upon recreational water users and public health to name two.

The risk profile and mitigation measures to manage the risk set out above for HDC is the same for the NCC pipeline asset.

7.4 Pan Pac – risk overview

An overview of the risk profile to Pan Pac is set out below. Further Pan Pac specific information is set out in Appendix B of this Joint Application.

Damage or breakage of the pipeline can have various consequences for the operations at Pan Pac. Pan Pac consider that there are a number of reasons for the protection of their wastewater pipeline under the SPPCA including to:

- Reduce any effect on the environment from a discharge from any part of the pipeline that is not within the appropriate location and therefore providing correct mixing and dilution.
- Provide security for the asset and enable the continuity of business at the site and ensure that the operation does not need to be shut down while any damage is being repaired.
- Reduce risks to Pan Pac's relationships with stakeholders, community and to the company's reputation as an exporter, to business relationships, investor.
- Provide for compliance with resource consents and other obligations.

²² The NCC consented treated discharge from the outfall should not exceed 32,000m³/day with a maximum flow rate of 1,400L/s.

²³ Draft Report – 'Napier City Wastewater Ocean Outfall – Napier Outfall Assessment (October 2020)', prepared by MetOcean Solutions.

- Prevent high cost of repair.
- Limited availability of specialists to undertake repair work.

Protection of Pan Pac's wastewater pipeline is considered further necessary following the discovery of a leak in the pipeline in September 2018 as a result of high seas in the area and the associated time and cost (reputational and financial) to repair the leak.

While this event was considered small in scale if it was compared to a full breakage of the pipeline, it resulted in significant concerns for local residents, and Pan Pac itself and took a considerable time, effort and expense to remedy. Pan Pac therefore believe it is essential to take steps to avoid any future disruption to the environment and the community as a result of potential future damage to the pipeline as set out in the joint application for a pipeline protection zone.

8. Exemption, Variations and Activities

The rationale for the size of the protection zones and the suggested exemption, variations and activities are set out below.

As part of the initial investigations, the applicants examined gazetted pipeline protection zones under the Submarine Cables and Pipelines Protection Act 1996. It recognised the majority of these protected zones were for the protection of fibre optic / telecommunication cables, power cables, and oil and gas pipelines. The exception to this is the Hastings Wastewater Treatment Plant pipeline diffuser which is the only gazetted area (we could positively identify) as a municipal pipeline. It is our understanding that there are no other municipal pipelines protected under the Submarine Cables and Pipelines Protection Act 1996.

8.1 Size of Pipeline Protection Zone

With the exception of the Napier City Council's proposed pipeline protection zone which was suggested to be set at 300 metres on the northern side of the existing pipeline to future proof the possibility of a new pipeline being installed adjacent to the existing pipeline, and 200 metres on the southern side of the existing pipeline, all other pipeline protection zones were proposed to be 200 metres either side of the centre and at the end of the pipeline outfall. As noted below this protection area was suggested by the local inshore commercial fisher.

8.2 Exemption or Variations

The suggested exemption or variations are considered to be activities that are have low / minimal risk of causing damage to the infrastructure/ pipeline. This is evident for example of exempting small recreational watercraft carrying out activities on the surface of the water as opposed to local inshore commercial fishers trawling along the seabed resulting in the potential to damage the pipeline.

Currently the suggested exemptions or variations are set out below. A rationale for these suggested exemptions or variations is provided:

(i) *a recreational fishing vessel and small watercraft traversing the area;*

Rationale: This allows for the continuation of recreational water-based activities.

(ii) *a ship being used for any repair, maintenance or service of the pipeline and associated parts, valves and components;*

Rationale: required to allow for pipeline operational requirements and consent condition compliance with respect to a safe, serviceable and good working order infrastructure asset.

(iii) *a ship entering the pipeline protection zone for monitoring, sampling, research and planned or unplanned (as a result of an accident) maintenance and inspection purposes.*

Rationale: required to allow for operational requirements and consent condition compliance for environmental sampling and monitoring purposes.

(iv) *anchoring of those ships for those purposes set out in (ii) and (iii) above.*

Rationale: required to allow for ships to safely anchor (if required) for maintenance and monitoring purposes.

8.2.1 Additional Exemption

The applicant has no intention of removing any access to kaimoana / gathering of seafood and have therefore suggested that this is added to the exceptions as set out below. Further the applicants specifically note that there is no restriction to customary rights, but the no anchor zone and exclusion of commercial vessels would still apply.

(v) *gathering of kaimoana / seafood*

Rationale: This explicitly provides for the issues raised by Submitter 25 (Tangoio Marae). Likewise, the recent resource consent process for Pan Pac that authorised the discharge from the outfall to Hawke Bay does not restrict access and gathering of kaimoana / seafood.

8.3 Activities that may be penalised

The offences under section 13(1)(a) of the SCPPA only are for trawling activities in relation to commercial fishing vessels.

8.4 Unaffected Activities

In contrast to the activities that may be an offence under the SCPPA, there are numerous surface water activities in coastal waters where activities are considered to be 'unaffected' within the gazetted protection area. These include, for example;

- a recreational fishing vessel and small watercraft traversing the area;
- a ship being used for any repair, maintenance or service of the pipeline and associated parts, valves and components;
- a ship entering the pipeline protection zone for monitoring, sampling, research and planned or unplanned (as a result of an accident or incident) maintenance and inspection purposes, and the anchoring of those ships for those purposes.
- gathering of kaimoana / seafood

In addition, the normal coastal water activities such as surf casting and diving are unaffected.

Monitoring the Protection Zones

The operators need to comply with the conditions of their respective consents in terms of annual and / or quarterly monitoring of the pipeline. This monitoring may be from underwater inspections, surface monitoring including visual inspections from a vessel or from aerial / drone footage.

8.5 Retrospective Monitoring

As a result of regular monitoring of the pipeline the operators or their Contractors can report upon any damage to the pipeline. This is a retrospective response to any damage to the pipeline given the lag time between the damage to the pipeline and the discovery of this damage. The clear sign of pipeline damage is a leak resulting in a conspicuous change in colour or visual clarity of coastal waters.

8.6 Active Monitoring

Based on reported sightings from the general public, operators, or other commercial fishers, the Harbour Master is able to be contacted and has the opportunity to travel to the site to provide a 'first response' to an alleged incident.

Cameras placed on buildings at the Hastings WWTP are able to provide real-time footage of any vessel traversing the pipeline. Both NCC and Pan Pac are investigating camera on their respective sites to carry out the same surveillance approach.

9. Site Location and Pipeline Protection Zone

Collectively in Hawke Bay the location of the three existing pipelines and the proposed PPZ is shown in Figure 9-1.

Figure 9-1 Location of Proposed Pipeline Protection Zones



Refer to Appendix A for Figures showing the three separate locations and the PPZ being sought for HDC, NCC and Pan Pac.

10. Consultation and Engagement

Following advice from the Ministry of Transport²⁴ it was noted that consultation is only a statutory requirement for the Minister of Transport to consult and not the applicant. However, in terms of ensuring the operator can satisfy the Ministry of Transport of consultation under Section 12(2) of the SPPCA, the Ministry would expect the applicant to be communicating with all affected parties.

It was agreed early in the project that a collaborative approach to key partners and stakeholder engagement and consultation would take place.

10.1 Marine and Coastal Area (Taukitu Moana) Act 2011 Claimants

The Operators are aware of the provisions of the Marine and Coastal Area (Taukitu Moana) Act 2011 with respect to the consultation with the relevant marine and coastal area applicants. This joint application has been provided to those applicants, given their interest as claimants seeking recognition orders under the Marine and Coastal Area (Taukitu Moana) Act 2011 over the area in question. The area in question mainly relates to the Pan Pac pipeline.

As noted under the 'Legal Framework' Section of this application, the protections/restrictions relating to the pipelines in Section 11 of the SPPCA would apply regardless. Section 11 refers to [an] 'offence to damage submarine cable or pipeline – wilfully or negligently', and the subsequent fine of up to \$250,000. In practical terms there is no great impact of the PPZ application on these claimants within the area of Pan Pac pipeline. Further, the additional effect of the protections sought under Section 12 would only apply to commercial fishing vessels not recreational fishers, or for example vessels entering the PPZ for monitoring and sampling research purposes.

The Engagement Plan and Record of Consultation along with responses is attached as Appendix C to this Application. The views of those that have been consulted with and provided feedback greatly assisted the operators in preparing and finalizing their respective PPZ applications.

The views of marine and coastal area claimants, key partners and stakeholders, are noted in the Appendix C of this application.

10.2 Specific follow up with local Iwi

10.2.1 Te Taiwhenua O Te Whanganui-a-Orotū

Te Taiwhenua O Te Whanganui-a-Orotū did not return email requests for a hui due to other time commitments. An email to sent to Te Taiwhenua O Te Whanganui-a-Orotū was sent on 19 November 2020 noting that it has been *rather difficult to meet due to other commitments. In responding to the issues raised in your written feedback, as attached to the Joint application (Submitter 23), the following response is provided:*

- *The applicant is responsible for the pipeline, as you rightly pointed out in your written feedback. The application that defined an area above the respective pipelines to be identified as an area to be protected from certain activities, namely commercial trawlers that have potential to damage the pipeline from fishing equipment being dragged along the bottom of the seabed and causing an environmental impact from the pipeline being damaged and thus resulting in treated wastewater entering coastal waters.*
- *The applicants do not have any intention to restrict tangata whenua access in the proposed zone.*
- *The application has no intention nor sought to claim this area.*
- *There is absolutely no intention nor any desire to restrict customary rights / purposes / access, but the no anchor zone and exclusion of commercial vessels would still apply as means to avoid potential damage to the pipeline.*

10.2.2 Tangoio Marae

Follow-up action and correspondence to Submitter 23 (Tangoio Marae) is summarised below:

- Pan Pac's cultural advisor (Mike Mohi) contacted the submitter to discuss the concerns raised in the submission. Mike Mohi also contacted the chair of the Tangoio Marae.

²⁴ Email 19 December 2018, between James Millar-Coote, (Adviser - Resilience and Security) Ministry of Transport and Grant Russell (Principal Environmental Consultant) Stantec NZ.

- Pan Pac responded to the concerns of the submitters and the Tangoio Marae via letter on 28 September 2020.
- Pan Pac had actively engaged with representatives of the Maungaharuru Tangitu Trust who represent the hapu of Tangoio Marae. Regarding the concerns raised by Tangoio Marae, Pan Pac's Environmental Manager (Reece O'Leary) contacted a Trustee from Maungaharuru Tangitu Trust who explained the relationship between Tangoio Marae and the Maungaharuru Tangitu Trust.
- Pan Pac understands that the submitters and the trustees of the Tangoio Marae are now comfortable with the proposal following the clarification provided by Pan Pac and Mr Mohi.
- Pan Pac will continue to keep all interested parties and submitters informed regarding the process going forward.

As an overview, the application has no intention nor sought to claim this area. The applicants are responsible for the pipeline and have through pre-consultation and engagement provided details set out in the application that defined an area above the respective pipelines to be identified as an area to be protected from certain activities that have the potential to damage the pipeline.

As noted above there is intention nor any desire to restrict customary rights but the no anchor zone and exclusion of commercial vessels would still apply.

10.3 Inshore fishers

An extract from the report '*Hawke's Bay Marine Information: Review and Strategy*' (HBRC publication 4806. Report No. RM16-21), notes under section 7.6 the impacts upon fishing resulting from trawling. While specific to the impacts on fishing, it is noted that the trawling of the seabed is demonstrated to impact upon the both the physical and biotic elements. The extract refers to anecdotal account from commercial fishers of what is found in the nets. This reference to 'anecdotal accounts' is in line with the previous discussion in this report regarding alleged evidence of trawlers traversing the pipelines of both NCC and HDC.

The extracted figure shown below, from the same report notes the general spatial pattern of trawling in Hawke Bay. Up-to date information on the spatial intensity of trawl fishing can be found on the Ministry of Primary Industry site - <https://www.mpi.govt.nz/dmsdocument/39356-New-Zealand-Commercial-Fishing-trawl>

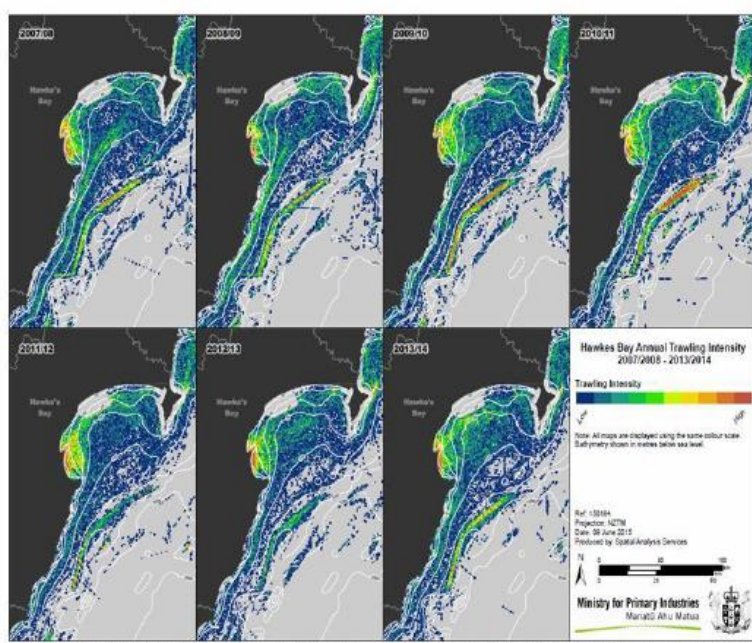


Figure 7.7. General spatial pattern of trawl intensity between 2007/08-2013/14 across - Hawke's Bay region (Source MPI 2015).

10.4 Personal comments and Images

Over the course of preparing the Joint Application, a series of alleged incidents where trawlers passed across the pipeline occurred. They are noted here to demonstrate the vessels i.e. trawler traversing or

anchoring near the pipeline, creates a real risk to the pipelines, and the frustration faced by compliant inshore commercial fishers and the operators of those who seemingly have no regard to the pipelines and the potential risk of an impact loads, such as trawling equipment, striking the pipelines may have.



Figure 10-1 Damage bouy – image taken on or about 30 May 2019

Figure 10-1 shows an image of the vandalized bouy, with a bent stem atop the bouy, in the vicinity of the HDC pipeline.

Furthermore, personal comments by Mr Karl Warr (Inshore Commercial Fisher) notes that on 28 May 2019;

"It would appear my requests for fishers to stay away from crossing over the outfall pipe behind the diffuser section (between diffuser and beach) Have gone completely unheeded (sic)"

In addition, it was noted, and photographed as seen by Figure 10-2, by a staff member of NCC on 5 June 2020; the following: *"This afternoon 2.30pm ish fishing boat out front had come passed the sewer outfall from the south. With the naked eye I could see the trawl lines were down and then when he slowed hauled the net In, I could see it clearly. They were inside the outfall when landing the net."*



Figure 10-2 Image of trawler in vicinity of NCC pipeline

This incident was followed up and it noted by a NCC Senior Council Officer that; *“According to MNZ we can ask for a Bylaw to be enacted via Harbourmaster who will then have the power to do something about incidents like this. This would shortcut the Submarines Cables and Pipeline Act protection, which should still be afforded to this asset.”*



Figure 10-3 Image of trawler in vicinity of HDC pipeline

It was noted in an email on 23 July 2021, from an aerial reconnaissance service provider to HDC that from the drone survey being carried out as part of a wider aerial inspection of the HDC pipeline: *“... a trawler was observed trawling across the outfall pipe, about 2 km out from shore, but away from the diffuser, did not manage to get a clear photo of boat identification due to drone monitoring taking priority”*. This image is shown above.

11. Community Impacts

The impacts of the proposed zones on each community (including who uses the areas, for what, are they remote, residential, is there commercial or recreation fishing diving, food gathering, swimming) are considered minor.

Generally, Hawke's Bay has one community across the three proposed zone. In other words, those that use the foreshore and coastal waters in the vicinity of the three pipelines be it in the vicinity of the Hastings, Napier or Pan Pac pipelines are one community and they do not largely differentiate between the coastal environment and the pipeline.

The local inshore commercial fisher provided their support for a protection zone and as noted provided the initial protection zone of 200 metres measured either side of the centre of the pipeline. This was based on their operational requirements as a trawler operator.

There is limited recreational swimming in the areas of the respective pipelines. The sites are somewhat remote and are not adjacent to any residential areas (with the exception of the houses at Whirinaki). Site specific information from Pan Pac is provided in Appendix B. The surf zones are relatively high energy wave environments and do not generally attract swimmers due to safety concerns. Recreational swimming typically occurs at Pandora Pond (Humber Street, Napier), Westshore (assess from Fergusson Avenue and Charles Street, Westshore, Napier). Other Napier based swimming sites include Hardinge Road, Sandy Port Beach (Breakwater Road) and occasionally at Marine Parade, though this site has strong currents and swimming is not recommended.

There are impacts on the local community that would ensue in the case of a damaged pipeline. This includes impacts on recreational users, public health, and environmental wellbeing. However, the report, including Appendix B, implies very minimal recreational use of the surrounding area, due to the risk of seafood pollution and the accessibility of the beach and surrounding area.

The degree of impact will vary depending on the how users, health and environmental issues are affected, and thus the operators have taken a prudent and precautionary approach to proactively to protect the pipeline through the SCPPA gazette process to minimise the potential impact on local communities and stakeholders.

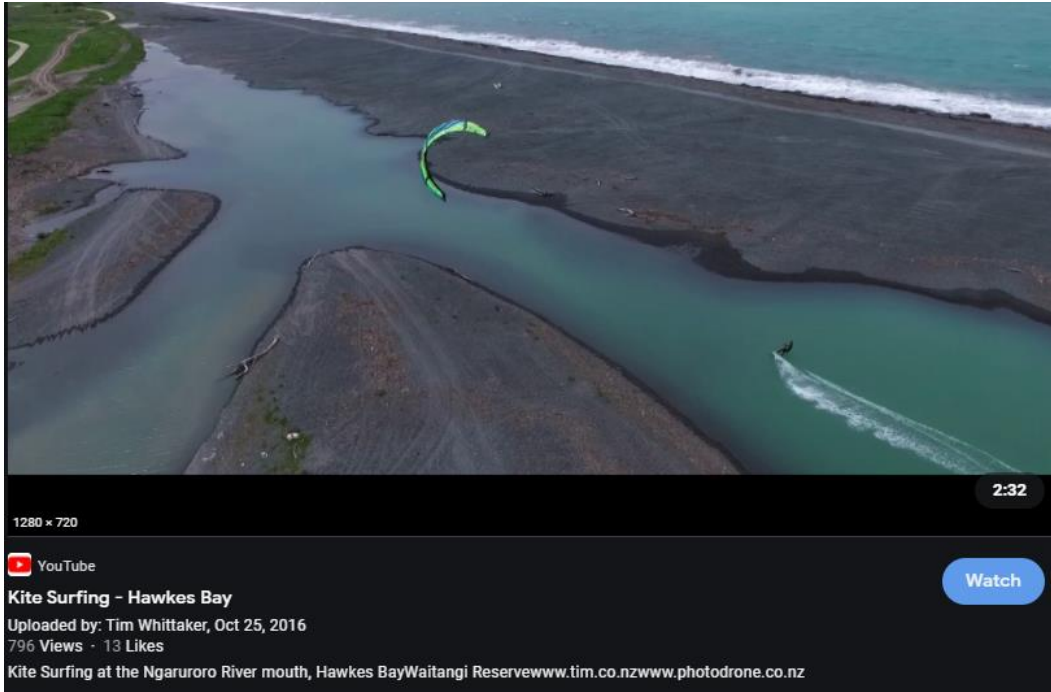
The typical Hawke Bay beach environment in the vicinity of the three pipelines are similar in nature and is broadly defined as pebbly / gravel beach substrate with a sandy seabed.

The degree of impact on the local community ranges from low to high depending on the scale of the pipeline damage, wastewater network flows and on how users utilise the area based in part on their accessibility of the beach and surrounding area. The potential effects on business continuity of Pan Pac, and for the HDC and NCC the reduced level of service to the wider community, mana whenua and stakeholders including ratepayers and industry users if the pipelines are damaged by vessels or their fishing equipment are high. The effects will also range from a low to high impact on environmental, cultural, social, including health and safety and public health depending once again on their accessibility of the beach and surrounding area.

HDC and NCC have undertaken modelling to understand the likely impact of a break on the outfall. The MetOcean modelling for HDC and NCC are reported upon in the respective reports 'East Clive, Hawke's Bay Hastings Outfall Stage 2 Assessment (HDC), prepared by MetOcean, August 2020' and 'Napier City Wastewater Ocean Outfall, Napier Outfall Assessment (NCC), prepared by MetOcean, October 2020'. Full Reports are attached in Volume 2. In summary the images show that closer the break to the shore the greater the risk. The ocean currents tend to flow north to south along the coast to Cape Kidnappers.

Typical recreational use that would be impacted for all three outfalls include surfcasting and kontiki fishing. The nearby Ngaruroro/Tutaekuri/Clive River estuary (Waitangi Regional Park – refer to <https://www.hbrc.govt.nz/hawkes-bay/regional-parks/waitangi-regional-park/>) would be affected which is used by rowers, kitesurfers, waka ama, whitebaiters and for recreational fishing. Other recreational use is people walking along the beach.

Recreational use by swimmers is low due to steep nature of the beach which creates a dangerous surf break. Based on the use of these areas there is a potential impact on recreational activities, public health and marine life.



There will be no overlap of the Pan Pac pipeline protection area with the Moremore Mātaitai reserve, as the proposed Pan Pac pipeline protection zone is directly out from the shore in the vicinity of the pipeline.

Commercial fishing occurs outside of the protected areas, apart from the local inshore commercial fishers. As discussed above, Mr Karl Warr as a local inshore commercial fisher is a proponent of the pipeline protection zone.

Some surfcasting and use of kontiki fishing occurs. The pipeline protection zone does not restrict this type of activity.

Diving is not restricted, however none of the pipelines would be considered as areas for significant recreational or commercial diving due to the sandy/silty seabed and usually poor visibility caused by the sediment discharge from rivers nearby and disturbance of the seabed from the swell.

11.1 Changes made as a result of consultation

Early and meaningful consultation started with the applicants and the Harbourmaster in November 2018. An initial meeting with locally based inshore commercial fisher took place to assist in the early working draft of the joint application. A suggested pipeline protection zone, approximately 200 metres either side of the pipeline centre, was agreed to as a starting point for consultation purposes.

There was a reasonable amount of pre-application consultation and engagement with key stakeholders to inform the preparation of the substantial draft joint application prior to it being publicly notified. This ensured the suggested pipeline protection zone for the respective pipelines were largely accepted by those that submitted on the draft application.

Aside from the views expressed by submitters 23 and 25, which have been commented on above, only minor changes were required on the joint draft application. The changes were largely inconsequential to the overall outcome being sought; namely the pipeline protected area and the exemptions and variations.

12. Processing the Pipeline Protection Zone Application

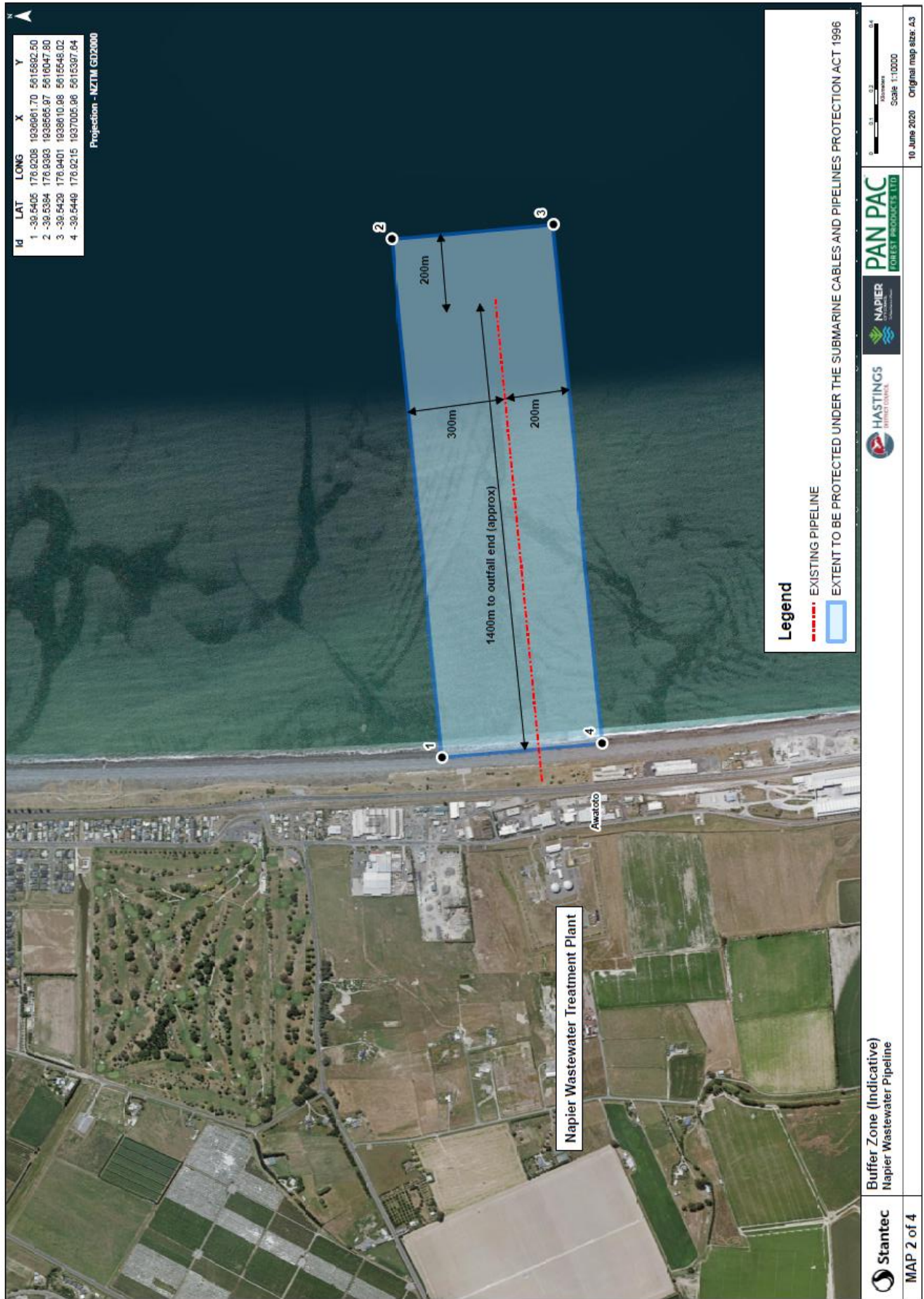
Once the application is submitted to the Ministry of Transport the process to establish a protected area as specified under Section 12 of the SCPA will be carried out by officials from the Ministry of Transport.

Appendices

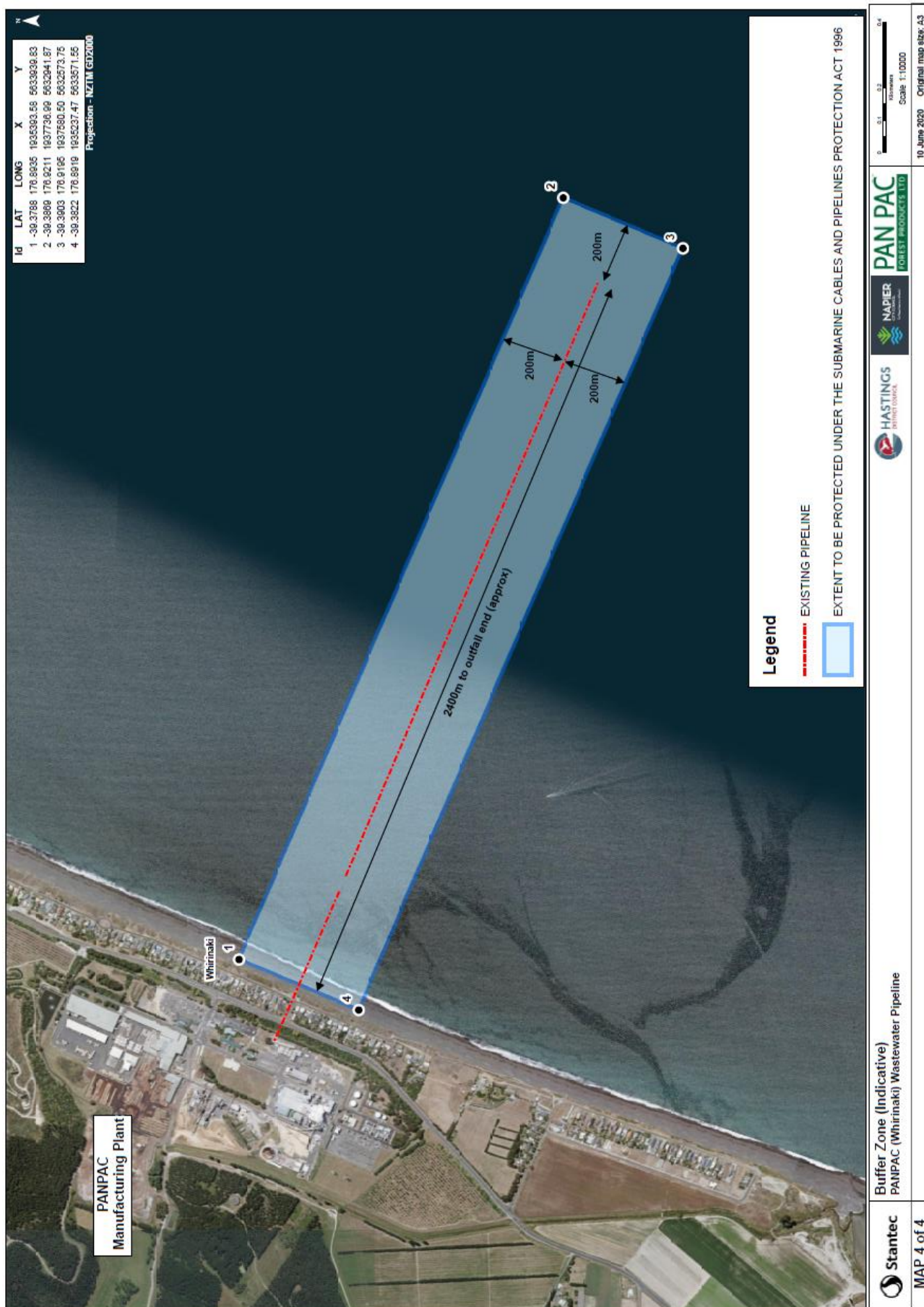
Appendix A Pipeline Protection Zones



Hastings District Council Pipeline Protection Zone	
<p>The PPZ shall commence at a point from the low-water mark to 200 metres passed the end of the existing outfall pipeline; a PPZ of 2950 metres. The PPZ shall be 400 metres wide, with the pipeline being more or less in the centre of the PPZ.</p>	
<p>Area [Identifier: Hastings District Council]</p>	
<p>All that area bounded by a straight line commencing at the low-water mark in position:</p>	
Point 1:	1938128.69, 5610857.80 (NZTM GD2000) or -39.5853, 176.9369 (WGS84), then to position;
Point 2:	1941107.45, 5612001.11 (NZTM GD2000) or -39.5738, 176.9709 (WGS84), then to position;
Point 3:	1941299.95, 5611647.23 (NZTM GD2000) or -39.5769, 176.9733 (WGS84), then to position;
Point 4:	1938321.96, 5610502.94 (NZTM GD2000) or -39.5884, 176.9393 (WGS84), low-water mark, then to the position of commencement.



Napier City Council Pipeline Protection Zone	
<p>The PPZ shall commence at a point from the low-water mark to 200 metres passed the end of the existing pipeline; a PPZ of 1600 metres. The PPZ shall be 500 metres wide, with the pipeline being more or less 200m from the southern boundary of the PPZ. This is to allow for replacement of the pipeline in the future.</p> <p>Area [Identifier: Napier City Council]</p> <p>All that area bounded by a straight line commencing at the low-water mark in position:</p>	
Point 1:	1936961.70, 5615892.50 (NZTM GD2000) or -39.5405, 176.9208 (WGS84), then to position;
Point 2:	1938565.97, 5616047.80 (NZTM GD2000), or -39.5384, 176.9393 (WGS84), then to position;
Point 3:	1938610.98, 5615548.02 (NZTM GD2000) or -39.5429, 176.9401 (WGS84), then to position;
Point 4:	1937005.96, 5615397.64 (NZTM GD2000) or -39.5449, 176.9215 (WGS84), low-water mark, then to the position of commencement



Pan Pac Forests Products Limited Pipeline Protection Zone	
<p>The PPZ shall commence at a point from the low-water mark to 200 metres passed the end of the existing outfall pipeline; a PPZ of 2600 metres. The PPZ shall be 400 metres wide, with the pipeline being more or less in the centre of the PPZ.</p> <p>Area [Identifier: Pan Pac Forest Products Limited]</p> <p>All that area bounded by a straight line commencing at the low-water mark in position:</p>	
Point 1:	1935393.58, 5633939.83 (NZTM GD2000) or -39.3788, 176.8935 (WGS84), then to position;
Point 2:	1937736.99, 5632941.87 (NZTM GD2000) or -39.3869, 176.9211 (WGS84), then to position;
Point 3:	1937580.50, 5632573.75 (NZTM GD2000) or -39.3903, 176.9195 (WGS84), then to position;
Point 4:	1935237.47, 5633571.55 (NZTM GD2000) or -39.3822, 176.8919 (WGS84), low-water mark, then to the position of commencement

Appendix B Pan Pac Forest Products Specific Information Submarine Pipeline Protection Zone



PAN PAC FOREST PRODUCTS LTD

**SUBMARINE PIPELINE
PROTECTION ZONE**

Company Specific Information

23 August 2021

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1. INTRODUCTION

Pan Pac Forest Products Limited (“Pan Pac”) is an integrated (forestry, pulping and sawmilling) business based at Whirinaki in Hawke’s Bay. Pan Pac holds a coastal occupation permit for a 2.4 km wastewater pipeline located on the seabed at Whirinaki and a resource consent to discharge treated process wastewater from the site to the ocean.

The Pan Pac pipeline is a significant piece of infrastructure for the company and any damage to the asset has the potential to negatively impact the local community and the coastal environment as well as causing considerable disruption to the operations. There is at present no known alternative to a continued coastal discharge through the pipeline at Whirinaki.

The protection of the Pan Pac pipeline from activities within the CMA that may result in damage by way of a protected area under the Submarine Cables and Pipelines Protection Act 1996 (“The Act”) has been seen as an essential mechanism to limit the risks to the company, the community and the environment.

This document provides details of Pan Pac, its stakeholder and community interests, the company’s investment in the pipeline infrastructure and therefore the reasons for the pipeline protection zone application.

2. BACKGROUND

2.1 COMPANY OVERVIEW

Pan Pac is wholly owned by Oji Green Resources, a fully owned subsidiary of Oji Holdings Limited.

The pulp and sawmilling operation at Whirinaki began at Whirinaki in 1973 and currently has three operating divisions, Forests, Pulp and Lumber with centralised support functions of Human Resources, Finance and Information Technology.

The Forestry Division manages the planting and harvesting of 35,000Ha of Pan Pac owned radiata pine. Pan Pac is the single largest forest owner in Hawke's Bay. Additional logs are harvested on private woodlots and purchased from other forestry companies across an area from Gisborne in the north to Masterton in the south, to make up the total of 1.2 million tonnes of logs purchased. A small portion of the logs that are not suitable for either sawmilling or pulping are exported directly from the Port of Napier.

The Lumber Division operates a 480,000m³/year output sawmill making it the single largest sawmill in New Zealand. The product output is focused on appearance grades of lumber for remanufacturing and furniture. Pan Pac accounts for 35% of all processed radiata pine entering the China market from all supply countries.

The Pulp Division operates a mechanical pulpmill. The heart of the pulpmill is the mechanical refiners which break down the raw chips into individual fibres. The pulp is dried and compressed into bales for supply to paper and board manufacturers. Over 98% of the finished pulp is exported generating foreign exchange earnings for the New Zealand economy of over \$100m NZD per year. The pulpmill mechanical refining is a large consumer of electricity. Pan Pac is the fifth largest single user of electricity in New Zealand, consuming around 500 gigawatt hours of energy each year.

The three divisions operate together with the integration of by products, energy, waste and water systems.

Pan Pac provides a significant contribution to the Hawke's Bay region and beyond through economic and social benefits as a result of its ability to continue operations at the Whirinaki site.

Pan Pac directly employs 400 full time equivalent staff in the Whirinaki Operations, a further 400 full time contractors in the management of forestry silviculture and harvesting operations, and engages engineering, consultancy and support contractors from across New Zealand. The Pan Pac operation is export based and has generated overseas revenues over \$300M NZD per annum in recent years. The products sold to overseas companies are commodities in nature and have to be competitive for the business to remain economic.

Pan Pac's estimated value-added component for 2016 to the regional GDP was a cumulative 5.4% and the total effect of 2930 FTE employment position. Pan Pac's export operations are also make up a third of the business through the Napier port, and is the single largest customer of the Napier operations.

The key statistics of the integrated Pan Pac business for the 2019/2020 financial year is detailed below.

Table 1: Summary of Pan Pac financials describing contribution

Spend into Economy	2019/20	Comment
Raw Material Purchases into value adding units	\$154 M	Costs of Logs and Chips purchased for producing Pulp & Lumber
Capital Spend	\$15.4 M	Reinvested in Company
Direct Employee Salaries	\$44.4 M	
Forest Contractors Spend	\$70.6 M	Includes 450 employees in Forestry
Total	\$284 M	

2.2 STAKEHOLDER AND COMMUNITY ENGAGEMENT

Pan Pac works to maintain their relationships with the local Whirinaki community, key stakeholders and the wider Hawke's Bay community and has a policy of supporting the community through a number of initiatives including providing community grants and sponsorships. This is underpinned by one of the company's environmental values:

Understand and manage its impact on the surrounding community and environment through open communication with community stakeholders.

Pan Pac in accordance with its environmental policy and environmental values has consulted and worked with community stakeholders to determine ways to protect, restore and enhance the local environment. This includes the establishment of the Pan Pac Environmental Trust ('PPET'), which is detailed further in section 6.6 below.

Pan Pac also hold an annual stakeholder meeting and communicates with the nearby Whirinaki residents to inform them of activities at the site, or specific projects that may be of interest.

Pan Pac also maintain ongoing relationships with various Tangata Whenua stakeholders, including those that have been defined mana whenua hapū in regard to the resource consent for the coastal discharge¹.

Pan Pac has engaged with key stakeholders and the Whirinaki community to communicate their intention of applying for a pipeline protection zone, outlined in the joint application document - Application to Ministry of Transport Pipeline Protection Zone Under the Submarines Cables and Pipelines Protection Act 1996, prepared for Hastings District Council, Napier City Council and Pan Pac Forests Products Limited (August 2021).

¹ Those with established mana whenua status over the area of land on the coast between Mataruahou (Bluff Hill) and Whakaari (Flat Rock) as advised by the HBRC.

3. PROPOSED PIPELINE PROTECTION

3.1 AREA TO BE PROTECTED

Pan Pac propose to protect the area identified in the joint application Figure 9-1 of the joint application and Appendix A therein.

This area incorporates an area of 200m either side of the pipeline and from the low water mark to 200m beyond the end of the pipeline diffuser.

3.2 REASONS FOR PROTECTION

Damage or breakage of the pipeline can have various consequences for the business, therefore Pan Pac consider that there are a number of reasons for the protection of their wastewater pipeline under the Act including to:

- Reduce any effect on the environment from a discharge from any part of the pipeline that is not within the appropriate location and therefore providing correct mixing and dilution.
- Provide security for the asset and enable the continuity of business at the site and ensure that the operation does not need to be shut down while any damage is being repaired.
- Reduce risks to Pan Pac's relationships with stakeholders, community and to the company's reputation as an exporter, to business relationships, investor.
- Provide for compliance with resource consents and other obligations.
- Prevent high cost of repair.
- Limited availability of specialists to undertake repair work.

Protection of Pan Pac's wastewater pipeline is considered further necessary following the discovery of a leak in the pipeline in September 2018 as a result of high seas in the area and the associated time and cost (reputational and financial) to repair the leak.

While this event was considered small in scale if it was compared to a full breakage of the pipeline, it resulted in significant concerns for local residents, and Pan Pac itself and took a considerable time, effort and expense to remedy. Pan Pac therefore believe it is essential to take steps to avoid any future disruption to the environment and the community as a result of potential future damage to the pipeline as set out in the joint application for a pipeline protection zone.

Further details of the September 2018 event are set out below.

3.3 PIPELINE LEAK SEPTEMBER 2018

In the days following a large storm event in Hawke Bay on 7 September 2018 where waves reached up to 7 metres high, a Whirinaki resident informed the Hawke's Bay Regional Council ('HBRC') of discoloration in the vicinity of the Pan Pac pipeline. Initial investigations by the HBRC suggested that this was an agal bloom however after a second complaint from the same resident, Pan Pac investigations confirmed that there was leak in a section of the original outfall pipeline (installed in 1972) at a point in the wave zone between the low and high tide marks.

The treated wastewater requires dilution at the depth afforded at the end of the pipeline and diffuser structure at 2,400m to reduce the visual effects of the wastewater plume and meet resource consent requirements (see section 3.2 below for further details).

It is noted that the treatment plant continued to operate normally and the main effect of the discharge close to the shore was the discolouration experienced due to the shallow depth of water and the relative lack of dilution of the treated wastewater escaping at the point of the outfall where the damage had occurred.

Pan Pac worked actively to address the situation from the beginning and in particular to identify effective methods of repair to the damaged area of the original outfall section. The repair was not straightforward in practical terms given the need to continue the discharge to sustain Mill operations, and the dynamic nature of the foreshore environment which any external repair work to the outfall pipeline needed to occur within.

A temporary staging platform allowing machinery access to the damaged section of pipeline to effect repairs was installed in October 2018, and attempts to seal the damaged area and encase it with concrete were made in December (following repairs to wave damage the temporary platform sustained in early December). The concrete encasement solution was not effective due to sand intrusion, and Pan Pac then commissioned two engineering firms to identify both short and long term solutions including internal and external options to seal the leak, and full replacement of the 400m section of the original outfall.

The solution identified was to install fibreglass patches and an internal sleeve which would seal the leak and strengthen the length of pipe to where it was applied. This was forecast to be completed by mid-February 2019, but complications arose through damage done to the exterior of the pipe during the late-2018 efforts to effect the repair from the outside. Additional engineering and weather challenges caused subsequent unavoidable delays.

Pan Pac completed a further CTV inspection that verified the leak was caused by corrosion perforations along a two metre long section of the pipeline, and an internal, steel protrusion located approximately one metre inshore of the corroded area of pipe.

On 3 April 2019, works began to flush water, sand and debris from the pipe from the onshore access point using water jetting equipment. Fibreglass patches were then applied across the corrosion damage. In conjunction with the fibreglass patch solution, a Swiss-made liner was installed the following week to further provide a secondary protection layer to prevent leakage. The liner was drawn through the pipe from the offshore end and secured in place, covering both patches.

Pan Pac liaised closely with staff at the HBRC and Hawke's Bay District Health Board (DHB) in working through the issue since first identified, and issued regular updates to the Whirinaki community about the issue and the steps being taken to rectify it since the problem arose. Weekly sampling of the leak was undertaken after the leak was first identified to quantify the public health risk, with results supplied to the DHB. Based on those results, the DHB directed that signage be placed warning the public against entering the water or collecting shellfish within 150m of the leak location.

Pan Pac and HBRC staff also discussed options for stopping the discharge in the first few days of the event. These discussions indicated that the only option available for Pan Pac to immediately stop the discharge for any length of time was to shut down the pulp mill, with flow on consequences across Pan Pac's operations such as effecting the performance of the biological treatment system. The HBRC concluded that shutting the mill down was disproportionate in light of the likely low level of public health or environmental risk posed by the discharge of the treated wastewater at the shoreline.

Considering the length of time required to find a suitable solution during this event and to undertake the repair, the consequences of any shut down of the Pan Pac mill would have had significant implications for the company and far-reaching effects within the wider Hawke's Bay economy.

The total cost of the repair work was in the order of \$1.7 million.

Since this event, the pipeline has now been futureproofed and the original sections replaced, including those beneath State Highway 2 through to the mill.

4. PAN PAC WASTEWATER PIPELINE

4.1 PIPELINE STRUCTURE

The Pan Pac wastewater pipeline was originally constructed in the early 1970's and comprised a 600mm diameter steel pipe buried on the foreshore, across the beach and through the surf zone and extending to a distance of 318m from the beach (at the mean tide line) including a 44m long diffuser.

Pan Pac completed an extension of the pipeline in early 2018 to enable additional dilution of the wastewater, attaching a new structure to the original steel pipe resulting in a total pipeline length of 2,400m. This includes a diffuser of 400m in length at the end of the pipeline, with 100 small diameter ports at a depth between approximately 15.7 and 16.6m. The port diameter varies along the diffuser to achieve an even distribution of wastewater discharge.

The outfall pipeline and diffuser are made up of a polyethylene pipe of 630mm diameter. Approximately 500 concrete blocks are placed at 4m spacings along the pipeline to ensure the pipe is secured to the seabed against the forces of waves and currents. The blocks are 1.5m wide and 0.51m deep, shaped as a large "U" section that wraps around the bottom half of the pipe. A steel strap over the top of the pipe holds the blocks in position.

The pipes and blocks are partly buried in the seabed and it was expected that the structure would form a long shallow artificial reef that range of marine biota would colonise within 6 to 12 months of installation. Pan Pac have imagery from dive surveys showing this.

4.2 WASTEWATER

The wastewater from the Pan Pac site undergoes treatment in a biological secondary process, which reduces the biodegradable organic solids and oxygen-demanding constituents to relatively low levels. The secondary treatment process results in the stronger colouration of the treated wastewater which in turn requires the increased dilution afforded by the discharge from the 2,400m pipeline to reduce the visual effects of the wastewater plume and meet resource consent requirements (see further details below).

There are low levels of nutrients in the treated wastewater. There are no pathogens derived from humans in the treated wastewater, as human derived waste is treated separately by Pan Pac and disposed of by spray irrigation into forest. However elevated levels of bacteria, particularly *Klebsiella*, grow within the warm pipes in a pulpmill.

The discharge rate varies over the day, and from day to day, but is generally in the range of 6,000 to 12,000m³/day, averaging around 9000 m³/day, with a possible maximum volume of 15,000m³/day.

The outfall is designed to provide an increased dilution of the wastewater in the receiving environment. The diffuser is designed to achieve a dilution of the wastewater at 500:1 (at the edge of the mixing zone), with the discharge from the diffuser being at a greater depth.

The mixing zone is located at 150m distance from the physical footprint of the diffuser.

5. COASTAL ENVIRONMENT AND COMMUNITY

5.1 FORESHORE ENVIRONMENT

The foreshore at Whirinaki is a steep and mobile beach of grey sand and pebbles without the benefit of any form of topography to provide a sheltered coastal environment. The beach has a steep slope of around 1 in 10.

The outfall pipeline extends from the mill, under the State Highway 2, along Whirinaki Road and into Hawke Bay.

5.2 MARINE ENVIRONMENT

The marine environment in the vicinity of the pipeline has a mobile bed of sand and fine sediment, has limited light penetration, high natural water turbidity experiencing regular storms and is periodically covered with a sheet of brackish water when there is high flow from the Esk River. There are no known offshore reefs near the extended outfall and, as a result, no suitable habitat for a wide range of marine plants and animals. The low light penetration limits primary productivity. Thus, the natural habitat in Hawke Bay near the outfall is suitable for only a limited range of marine life, not including reef flora and fauna or seaweeds or seagrass.

5.3 WHIRINAKI COMMUNITY

Whirinaki Road separates the beach from the Whirinaki settlement. The Whirinaki settlement is a long-established residential area that originated as a bach settlement. The area now mostly comprises permanent residents with approximately 120 houses. The settlement extends as a single line of houses between Whirinaki Road and State Highway 5, comprising single dwellings on each site. All properties have expansive sea views with a number of two-story dwellings to take further advantage of those views.



Figure 1: Whirinaki Road and Pan Pac Pulp Mill

5.4 RECREATION

Recreational activities along the beach front are generally restricted to fishing via surf casting and Contiki. Due to the, pebbly beach substrate and the exposed nature of the coastline, the beach at Whirinaki in the vicinity of the pipeline is not generally used for swimming and diving. There are no boat ramps in the Whirinaki area that are used to launch boats.

Pan Pac are also required as a condition of their coastal discharge permit to install and maintain signage making the public aware that there is a risk of harvesting seafood in the vicinity of the outfall, including that shellfish within a 150m radius of the diffuser are unfit for human consumption.

6. PIPELINE RESOURCE CONSENT PROCESSES

The following section provides context to the wastewater pipeline resource consents, Pan Pac's investment in time and resource and the involvement of various stakeholders.

6.1 DISCHARGE CONSENT VARIATION

Following an upgrade of the wastewater treatment system in 2012 that resulted in a conspicuous, but otherwise environmentally benign discharge to the ocean, Pan Pac applied for a variation to the (then) current discharge consent on 18 August 2014. Applications were also made for a new coastal occupation permit, and to undertake associated works in the coastal marine area. The purpose of the applications was to address the visual appearance of the wastewater at a new discharge point 2,400 km out from the coastline, through the installation of an extended pipeline including a new 400m diffuser section.

The extension into deeper water coupled with the new diffuser was designed to achieve a dilution of 500:1 at the edge of the mixing zone. The increased dilution, coupled with natural temperature and salinity stratification keeping the discharge submerged approximately 90% of the time, was needed to address the conspicuousness of the discharge from the shorter outfall. The combination of increased dilution and natural temperature and salinity stratification would render the discharge inconspicuous greater than 99% of the time, including in the mixing zone.

This application was publicly notified and attracted three submissions including from Maungaharuru-Tangitū Trust ("MTT"). The variation was granted through a Council hearing in August 2015 and then appealed by MTT.

Following mediation and further Environment Court hearings, the Environment Court upheld the Council decisions and granted replacement consents². As part of this process, the Environment Court reviewed the evidence given by Pan Pac regarding alternatives both to a continued coastal discharge, and to addressing the discolouration issue. It concluded that there were no practicable alternatives to the proposed extension of the existing outfall to address the non-compliance issue with the existing discharge permit.

The Court nevertheless supported the comprehensive evaluation of alternatives with multi-party participation ahead of the required 2017 discharge consent renewal application. Pan Pac engaged with MTT throughout the process and agreed to delay the construction of the extended pipeline until the completion of a Multi Criteria Assessment ("MCA") of alternative treatment and disposal options that would guide the renewal application.

² Maungaharuru-Tangitū Trust v Hawke's Bay Regional Council [2017] NZEnvC 16 - Final decision 10 February 2017

6.2 MULTI-CRITERIA ASSESSMENT OF ALTERNATIVES

In September 2016, Pan Pac initiated an assessment of alternative options for the wastewater treatment and disposal from the site to review both the method of treatment and the receiving environment (Process Wastewater Options Review). This assessment of alternatives was undertaken by a Working Party appointed for the purpose with the aim being to identify, and ultimately recommend, a preferred treatment and disposal option for the Pan Pac wastewater using a Multi-Criteria Assessment of Alternatives ('MCA') process.

This process was supported by the Environment Court in its interim decision on the appeal on the pipeline extension consents.

[169] ...we support a comprehensive evaluation of alternatives with multi-party participation as part of the 2017 consent application. In this way all parties will have the opportunity to identify options they consider should be investigated and to understand the practicality, benefits and costs of each one.

Various stakeholders associated with Pan Pac and Whirinaki residents were invited, including representatives of a number of iwi groups and authorities including Ngāti Pāhauwera Development Trust, the Mana Ahuriri Trust, MTT, and other stakeholders including community representatives and environmental organisations (such as the Department of Conservation and Royal Forest and Bird). The Working Party attended nine workshops between September 2016 and May 2017.

Technical experts were engaged (on an agreed basis by the Working Party), who originally identified 42 options that were subsequently shortlisted to four for thorough evaluation across a range of criteria including:

- Natural character, landscape and historic heritage value
- Public access and recreational values
- Maori cultural values
- Ecological values
- Effects on other land owners/resource users and local residents
- Economic viability
- Technical viability.

Each criterion received a negotiated and agreed weighting reflecting relative significance under the RMA and in the circumstances of the project.

The Working Party ultimately recommended an option involving a continued discharge through the 2,400m extended outfall approved by the Environment Court in its February 2017 decision.

Pan Pac then lodged a resource consent application for this option and sought that it be determined by the Environment Court through direct referral (as detailed below).

6.3 RESOURCE CONSENT RENEWAL PROCESS

Following completion of the MCA process, Pan Pac prepared the necessary application for the resource consents required for that option and lodged that with the HBRC on 27 June 2017.

Specifically, the application sought resource consent:

- To renew the discharge permit granted by the Environment Court in February 2017 (which expired in December 2017); and
- To replace the coastal occupation permit for the extended outfall and diffuser (which would otherwise expire in December 2022).

Pan Pac then began constructing the extended outfall as approved by the Environment Court in February 2017. Those works commenced in September 2017, the first summer construction season following the Court's final decision, and the new extended outfall and diffuser were completed in February 2018.

6.4 DIRECT REFERRAL APPLICATION – MEDIATION

Despite the extensive background of consultation and stakeholder engagement in the process to this point (as described above), Pan Pac specifically requested public notification of the June 2017 consent application, to ensure that all potentially interested parties could comment on the application through a public process.

The application was publicly notified on 25 July 2017 with submissions closing on 22 August 2017.

13 submissions were received, nine of which opposed the proposal. The key issue in contention in the submissions remained the concern over the biophysical effect the continued discharge to the coastal marine area (and the outfall extension) would have on the receiving environment, and thus the cultural relationship which a number of submitter groups with Hawke Bay/Tangitu.

Despite the lengthy even litigious history to the outfall variation and consent renewal process to that point, Pan Pac remained motivated to try and negotiate with the submitters towards resolution of their concerns, rather than having to relitigate all of those issues in the Environment Court so soon after the 2016 case.

Following five days of extensive mediation, all submitters to the direct referral application for the renewed consents agreed that the renewed and replacement consents for the extended outfall could be approved so as to expire in 2052.

The conditions at the mediation included provision for regular technology reviews, the direct involvement as mana whenua/mana moana and kaitiaki over the coastal marine area affected by the outfall and discharge and the establishment of an Environmental Trust that was first proposed during the MCA process.

6.5 ENVIRONMENT COURT DECISION

Environment Court approved the renewed resource consents for the extended outfall in a decision released in June 2019, for a 35 year term subject to the conditions agreed at mediation.

The Court also endorsed the robust process that Pan Pac went through in terms of both consultation and assessment of options (paragraphs [35] and [36]) in particular).

[35] We consider that the evaluation of alternatives undertaken in accordance with condition 30 of discharge permit CD160286W, leading to the identification of a 2,400m long sea outfall as the recommended option, was undertaken to a high standard and all participating parties are to be complimented on their contributions. We were particularly impressed by the approach taken by Pan Pac in accepting that they would have no vote on the recommended option. On the basis that the preferred option from the Working Party evaluation was discharge through the extended outfall approved by the Environment Court in 2017, the Working Party acknowledged that it was appropriate for Pan Pac to continue with the discharge and seek new resource consents.

[36] We consider that Pan Pac took all reasonable steps to ensure that any party with an interest in the proposal was consulted and that opportunities for parties to participate in the process were extensive.

6.6 PAN PAC ENVIRONMENTAL TRUST

As detailed above, during the mediation process Pan Pac agreed to contribute up to \$100,000 per annum to an Environmental Trust. The funds were to be split evenly between two principal purposes, being the offset of cultural impacts on mana whenua hapū, and to benefit the Hawke's Bay community by promoting the enhancement, restoration and protection of the environment more generally.

This approach was not only consistent with the outcomes of the Working Party recommendations and MCA but represented a practical method to recognise and provide for the relevant cultural relationships considered to be affected by the activities for which the renewal application sought approval, in terms of section 6(e) of the RMA.

The Trust was incorporated under the Charitable Trusts Act 1957 on 20 March 2020. Seven Trustees representing Pan Pac, Ngati Parau, Mana Ahuriri Trust, Maungaharuru Tangitū Trust, the Pan Pac Stakeholders Forum and the Whirinaki area have since awarded

the 2020 and 2021 funds to a variety of applicants for projects being undertaken throughout Hawke's Bay. .

Further information can be found at the Trust's website - www.ppet.org.nz.

6.7 SUMMARY

Pan Pac's commitment to positive outcomes for both the company and its stakeholders has been extensive throughout the wastewater pipeline resource consenting processes. The engagement has enabled Pan Pac to understand the views of the community, tangata whenua and other interested parties, and further strengthen the relationships.

7. MARINE AND COASTAL AREA (TAKUTAI MOANA) ACT 2011

The Marine and Coastal Area (Takutai Moana) Act 2011 ('MACA') acknowledges the importance of the marine and coastal area to all New Zealanders and provides for the recognition of the customary rights of iwi, hapū and whānau in the common marine and coastal area³.

There are currently 20 MACA applications in the Hawke's Bay region for customary marine title and / or protected customary rights. The application area of three groups includes the coastal marine area off Whirinaki where the Pan Pac pipeline is located and therefore Pan Pac have registered as an interested party in the proceedings in relation to these applications. These parties are:

- The Trustees of the Ngāti Pāhauwera Development Trust
- Mr Malcolm Kingi on behalf of Ngai Tāhū o Mohaka-Waikare
- The Trustees of the Maungaharuru Tangitū Trust.

The High Court heard the applications over a seven week hearing in February to March 2021. Pan Pac presented submissions and evidence to ensure that the Court had future resource consenting implications for the company firmly in mind in deciding whether to make the recognition orders sought (for customary marine title and protected customary rights). It is likely that if any such orders are made it would be on the basis that customary marine title is shared or held collectively by the applicants. The extent to which such orders would recognise Pan Pac's interests relative to the pipeline location and outfall, remains to be seen with the High Court's decision pending.

³ <https://tearawhiti.govt.nz/te-kahui-takutai-moana-marine-and-coastal-area/>

8. CONCLUSION

The details provided in this document supports the need for the pipeline protection zone in the vicinity of the Pan Pac pipeline to prevent future damage from vessels to the pipeline which can have environmental, cultural and financial consequences.

Appendix C Engagement Plan and Record of Consultation

C.1 Submarine Pipeline Consultation

It was agreed with the Project Team that consultation and engagement with Iwi and stakeholders would be carried out collaboratively with HDC, NCC and Pan Pac.

The submarine pipeline consultation was advertised alongside four other NCC consultation messages from 24 June to 16 July 2020. The consultation was advertised as part of group consultation advertising in the Napier Courier on 24 June, 1 July, and 8 July. It was advertised individually in the Napier Courier on 8 July 2020.

The consultation was also advertised via digital screen in Napier City Council Customer Services and Taradale Library. There was a website tile advertising the five consultations on the NCC homepage, as well as links on the annual plan page to the consultation pages on www.sayitnapier.nz.

Courier circulation: 22,000 Napier households (three separate insertions)

The 'Say it Napier' landing page received 3239 unique hits, and in turn the submarine pipeline webpage received 283 unique hits.

A flyer was delivered to nearby properties of the NCC and HDC wastewater outfall and signs were put up by the beach and cycleway pathways. A sign was also posted adjacent to the boat ramp at Clifton located south of the Hastings WWTP, a popular boat ramp for launching recreational boats.

Pan Pac carried out a targeted letter drop to local residents at Whirinaki.

Examples of the digital screen artwork and Napier City Council website tile are shown below. These were also available via a link from the HDC home page.





**We're keen to protect our wastewater pipelines.
What do *you* think?**

sayitnapier.nz **say it!**

Napier City Council, Hastings District Council and Pan Pac Forest Products are jointly applying for a protection zone above their ocean-based wastewater pipelines under the Submarine Cables and Pipelines Protection Act 1996. Protection zones aim to prevent future damage to these pipelines, and give each organisation legal protection of their wastewater pipelines.

We're keen to hear your feedback by 16 July 2020 - visit sayitnapier.nz





Five consultations now open for feedback. Have your say on Napier's future.

Draft Annual Plan 2020/21 Consultation

An annual plan focuses on what a council intends to do over the 12 months of a financial year, and how these projects, operations and services will be paid for. Consultation topics include: drinking water supply and network, the wastewater outfall, post COVID-19 recovery plan, the roll-out of wheelie bins for kerbside rubbish collection, the return of the Napier Library to its original location, along with a proposed 4.8% rates rise and targeted relief to support those in the community who may be struggling financially.

Joining the Local Government Funding Agency

Being a member would give the Council the option to access the best lending rates. (Special Consultative Procedure)

The Rates Remission Policy

The proposed changes would allow Council to refund or discount rates and rates-related penalties in some cases.

The Rates Postponement Policy

The proposed changes will in some cases mean ratepayers can delay their rates without penalty.

Submarine Pipeline Protection

Applying for a protection zone above their ocean based wastewater pipelines, to prevent future damage, and giving each organisation legal protection of their pipelines. (In conjunction with Hastings District Council and Pan Pac Forest Products Ltd)




Submissions close **16 July 2020**
It's easy! visit sayitnapier.nz





We're keen to protect our wastewater pipelines. What do **you** think?

sayitnapier.nz

say it!

Napier City Council, Hastings District Council and Pan Pac Forest Products are jointly applying for a protection zone above their ocean-based wastewater pipelines under the Submarine Cables and Pipelines Protection Act 1996.

Protection zones aim to prevent future damage to these pipelines, and give each organisation legal protection of their wastewater pipelines.

We're keen to hear your feedback by 16 July 2020

Visit sayitnapier.nz



C.2 Website Feedback

Three key questions to generate feedback were posed. The figures and graphs below tabulate the answer choices (yes or no) and the percentage of responses based on the 24 responses received via the website. It shows a high-level of support for the pipeline protection zone. Additional comments are provided in the Pipeline Protection Consultation Summary table along with responses to those comments from the Pipeline Protection Consultation Team.

Pipeline Protection Zone Consultation

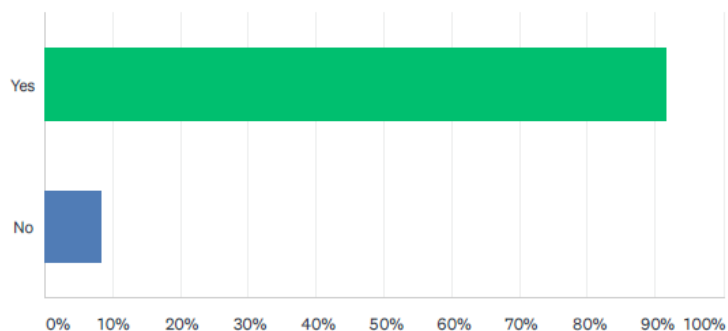
Q1 Contact Details

Answered: 24 Skipped: 0

ANSWER CHOICES	RESPONSES	
Name	100.00%	24
Organisation/ Company	29.17%	7
Address	100.00%	24
City	100.00%	24
Phone Number	95.83%	23
Email Address	100.00%	24

Q2 Overall, do you support the application for establishment of a protection zone for ocean based wastewater pipelines?

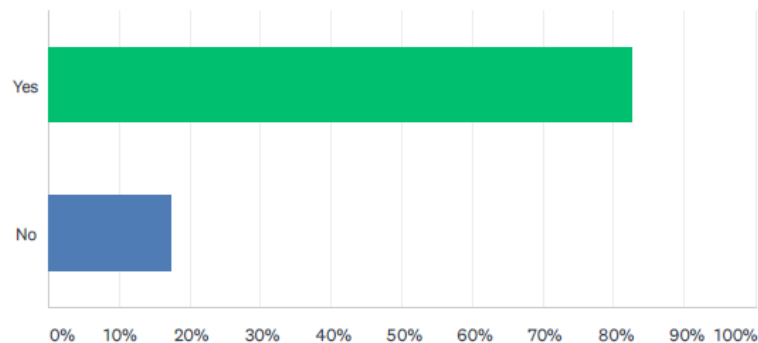
Answered: 24 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	91.67%	22
No	8.33%	2
TOTAL		24

Q3 It is proposed that the protection zones for the Hastings District Council and Pan Pac pipelines will be 400 metres (200 metres each side of the pipeline), and that the protection zone for the Napier City Council pipeline will be 500 metres (300 metres on the northern side and 200m on the southern side of the pipeline). The protection zones will extend 200 metres from the end of each pipeline. Do you support this?

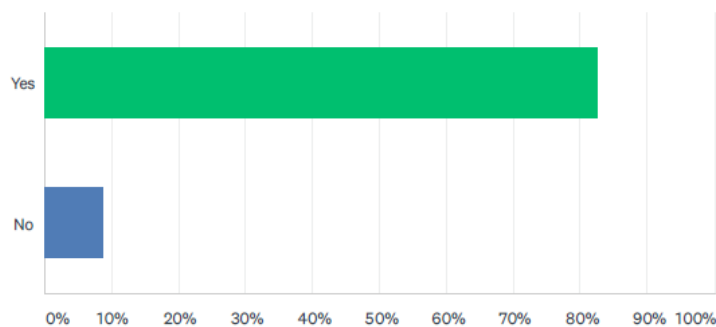
Answered: 23 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	82.61%	19
No	17.39%	4
TOTAL		23

Q4 The protection zone proposes to exclude commercial fishing vessels. It would still allow recreational fishing vessels and small water craft to travel through the zone. Do you support this?

Answered: 23 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	82.61%	19
No	8.70%	2
TOTAL		23

C.3 Pipeline Protection Zone Consultation Summary

A total of 25 submissions were received. Twenty-four submissions were received via the website and one written letter was received. The details of the submissions and the Pipeline Protection Consultation Team response to matters raised are set out in the table below.

Survey Questions	
Q1	Contact Details
Q2	Overall, do you support the application for establishment of a protection zone for ocean-based wastewater pipelines?
Q3	It is proposed that the protection zones for the Hastings District Council and Pan Pac pipelines will be 400 metres (200 metres each side of the pipeline), and that the protection zone for the Napier City Council pipeline will be 500 metres (300 metres on the northern side and 200m on the southern side of the pipeline). The protection zones will extend 200 metres from the end of each pipeline. Do you support this?
Q4	The protection zone proposes to exclude commercial fishing vessels. It would still allow recreational fishing vessels and small watercraft to travel through the zone. Do you support this?

All submissions received an acknowledgement and in some cases as the submitter posed a query an additional response was warranted over and above the standard response.

Standard response:

Tēnā koe [name]

Thank you for taking time to respond to the recent survey regarding the application by Napier City Council, Hastings District Council and Pan Pac Forest Products Ltd for the establishment of a protection zone around their ocean based wastewater pipelines.

The project team is currently considering all of the feedback received and is seeking further feedback from some parties who had questions on the proposal.

Ngā mihi

Pipeline Protection Consultation Team

C.4 Summary of Feedback and Response

	Name	Feedback	Response
1	Steve Moretta	Supportive - Q2, Q3, Q4 No comments	Standard response
2	Hayden Moffitt Ocean adventures	Supportive - Q2, Q4 Not supportive - Q3 Comment Q3: <i>I support the protection zone but needs to be only on the sea bed so boats can still steam over top of it, so no anchoring or trawling within those measurements.</i>	You noted in your feedback that the protection zone should only relate to the sea bed, and that vessels should still be able to steam over the zones. We can confirm that the proposed zones would still allow recreational vessels to transit across the zones.
3	Paul Redman	Supportive - Q2, Q3, Q4 Comment Q4: <i>Can small recreational vessels Anchor. What type of buoys would they be and what light system? Sequence</i>	You had some questions regarding the use of the zones by recreational vessels and the marking of the zones. The intention is that vessels should not be anchoring in the protection areas and as already suggested in the navigational charts for Napier and Hastings submarine pipelines. The protection areas would not have marker buoys, however the end sections of all three existing pipelines have marker buoys and lights. The light sequences can be found on the navigation charts (overleaf) and can be found at http://www.wetmaps.co.nz .

Name	Feedback	Response
		<div data-bbox="1048 252 1881 914"> </div> <p data-bbox="1048 914 1942 975">Image 1: NCC (northern location) and HDC (southern location) pipeline with marker buoys and lights</p> <div data-bbox="1048 1002 1881 1415"> </div>

	Name	Feedback	Response
			Image 2: Pan Pac pipeline with marker buoys and lights
4	John Wheatley Tinopai Sea Harvesting Ltd	Supportive - Q2, Q3, Q4 No comments	Standard response
5	Gary Steed	Supportive - Q2, Q3, Q4 Comment Q4: <i>This should be extended to include any activity which may cause damage to the pipelines. Will this allow recreational fishing within this zone, e.g. surfcasting or fishing from a boat? The wording "to travel through the zone" implies these activities will be restricted.</i>	Standard response plus additional comment: You had some questions regarding the use of the zones by recreational vessels. The intention is that vessels should not be anchoring in the protection areas and as already suggested in the navigational charts for Napier and Hastings submarine pipelines. However recreational fishing vessels and small watercraft will be able to travel through the area.
6	Jen Ellingham	Supportive - Q2, Q3, Q4 No comments	Standard response
7	Paul Jarvis	Not supportive - Q2, Q3 No response - Q4 Comment Q2, Q3: <i>We should not be putting our sewage out to sea. It should be all land based.</i>	Standard response
8	Dean Perry	Supportive - Q2, Q3, Q4 Comment Q4: <i>At the Hastings pipeline site in Clive is it possible to build a surf break by using the existing concrete structure from an older pipeline? Surfers aren't consider at all in coastal planning.</i>	Standard response plus additional comment: You suggested in your feedback that a surf break should be built at the Hastings District Council pipeline. Coastal structures including surf breaks are not being considered as part of this proposal.
9	Jane Dalmer	Supportive - Q2, Q3, Q4 No comments	Standard response
10	Michele Grigg	Supportive - Q2, Q3, Q4 Comment Q3: <i>It makes sense to protect these assets.</i>	Standard response
11	Anita Finnema	Supportive - Q2, Q3 Not supportive - Q4 No comments	Standard response
12	Kim Hall	Supportive - Q2, Q3, Q4 No comments	Standard response
13	G Curtis	Supportive - Q2, Q3, Q4 No comments	Standard response
14	Joe Schofield	Supportive - Q2, Q4	Standard response plus additional comment:

Name		Feedback	Response
		<p>Not supportive - Q3</p> <p>Comment Q3:</p> <p><i>Far better to fix it properly we have not spent any money on this in years. push it out to 2.4km like the others and have the same exclusion zone as them. stop pumping sewage out of a broken pipe to close to shore the brown stain is very noticeable if you know what you are looking at.</i></p>	<p>You noted the effects of the current leak in the NCC pipeline in your feedback and suggested that the pipeline should be extended to 2.4km and have an exclusion zone equal to that of the HDC and Pan Pac pipelines. NCC spends in the range of \$150k to \$1.0M per year on maintaining its outfall. And are currently planning repairs to the leak and also investigating options to replace the pipeline. The proposed exclusion zone will provide for the construction of a new pipeline alongside the existing pipeline.</p> <p>NCC is undertaking a long-term planning for the wastewater treatment plant and pipeline. Any extension of the pipeline will be a balance in increasing the level of treatment and extension of the pipeline.</p>
15	Kim Smith	<p>Supportive - Q2, Q3</p> <p>Not supportive - Q4</p> <p>Comment Q4:</p> <p><i>Should be no fishing zones for everyone</i></p>	Standard response
16	Lynda Otter	<p>Supportive - Q2, Q3</p> <p>No response - Q4</p> <p>Comment Q4:</p> <p><i>Not sure.</i></p>	Standard response
17	Brice Cameron	<p>Supportive - Q2, Q3, Q4</p> <p>No comments</p>	Standard response
18	Glenn Abel	<p>Supportive - Q2, Q3, Q4</p> <p>Comment Q3:</p> <p><i>Any discharge with liquid to sea should be treated so that that liquid is clean enough that it could be drunk. There should be no solids of any form. Napier's pipeline needs to be longer to represent the flow of liquid per capita against the length of the other two and maybe all should be extended.</i></p> <p>Comment Q4:</p> <p><i>Commercial Fishing should not be within a few of miles off the shore, to protect fishing for recreational fishing. And again no liquid or solids that can not be safely drunk safely should be discharged to sea. We have made a mess of the Oceans with plastic and other discharges and its time to clean up our act.</i></p>	<p>Standard response plus additional comment:</p> <p>NCC is undertaking a long term planning for the wastewater treatment plant and pipeline. Any extension of the pipeline will be a balance in increasing the level of treatment and extension of the pipeline.</p>

	Name	Feedback	Response
19	Peter Eastwood	Supportive - Q2, Q3, Q4 No comments	Standard response
20	Maree Leatherby	Supportive - Q2, Q3, Q4 No comments	Standard response
21	John Stewart LegaSea Hawke's Bay	Supportive - Q2, Q3, Q4 Comment Q2: <i>LegaSea Hawkes Bay is an organisation of concerned recreational fishers determined to re-build our depleted fish stocks in Hawke Bay and the surrounding area. We are a branch of LegaSea New Zealand, which is an outreach arm of the New Zealand Sport Fishing Council. We don't claim to represent all recreational fishers in the Bay however we do have the support of seven Sport Fishing Clubs from Mahia to Parongahau. Our advocacy team has a wealth of experience with decades of fishing in Hawke Bay waters. Further we are represented at a national level by members on the N Z Sport Fishing Council and as President of the N Z Angling & Casting Association Inc. We have studied the draft application to the Ministry of Transport for a pipeline protection zone for the three wastewater pipelines owned by NCC, HDC and Pan Pac. We understand the need to give protection to these valuable assets and have no objection to the proposed application. We support no anchoring by recreational fishers in the zones but believe there should be no limitation to trolling or jigging. As a stakeholder with a major interest in the marine environment of Hawke Bay, thank you for the opportunity to comment on the proposal.</i>	Standard response
22	Alan White	Supportive - Q2, Q3, Q4 Comment Q3: <i>I cannot understand why comment was not made in the supporting documents as to why the 3 outfalls have different lengths. I appreciate location, currents and discharge material would</i>	Standard response plus additional comment: Your feedback questioned the rationale behind the length of the protection zones for the pipelines.

	Name	Feedback	Response
		<p><i>be factors. I could not see the explanation/rationale though. I would like to be assured that there is supporting environmental impact/ engineering rationale in the application for the Napier outfall (and any replacement) will be able to meet current standards within the area being set applied for. It would seem strange that a pipe constructed in the late 70's would still meet 2020 environmental standards as to outfall discharge point distance from the shore.</i></p>	<p>Each zone has been based on the existing length of the pipelines providing a 200m zone on either side and beyond the end of the structures, noting that the Napier pipeline protection zone is proposed to be 300m on the Northern side of pipeline to accommodate the potential replacement of the pipeline, at which time any environmental effects will be assessed as required by the RMA and other relevant legislation. NCC improved its level of wastewater treatment in 2014 which discharges through its pipeline, to meet its new (2014) discharge consent requirements.</p>
23	Tania Eden	<p>Not Supportive - Q2, Q3 No response - Q4 Comment Q2: <i>Mana Whenua do not support this as it will have potential to restrict tangaa whenua access and use of the zones around the moana above the pipelines. Although these areas are defined, in effect when gazetted these will create exclusion zones and prevent access to and also mana whenua having mana over the moana. This will set a precedent within Te Matau a Maui. Pipelines have permits for seabed occupation and discharge s are a major risk for the moana. We do not support this or any expansion to include surface water above and adjacent to the pipeline (within 200-300 metres either side).</i> Comment Q3 and Q4: <i>Mana Whenua need further consultation and discussion on this.</i></p>	Ongoing via phone and email
24	Nichola Nicholson Hawke's Bay Regional Council	<p>Supportive - Q2, Q4 No response- Q3 Comment Q2: <i>Thank you for the opportunity to provide feedback on the Submarine Pipeline Protection Application. The Regional Council supports the application for submarine pipeline protection zones as outlined in the application. We believe that the creation of these zones will provide</i></p>	Standard response

Name	Feedback	Response
	protection from damage to the pipes, lessening the risk of nearshore pollution events resulting in adverse environmental effects. However, we want to ensure that compliance activities and environmental sampling could still occur within these zones. We support the exclusion of commercial fishing vessels whilst still allowing for recreational fishing vessels and small water craft to travel through the zone as we are aware the most damaging and risky activity around submarine pipelines has proven to be bottom trawling.	
25	<p>Evelyn Ratima Tangoio Marae</p> <p>Feedback via letter to NCC, HDC and Pan Pac</p> <p>My name is Evelyn Ratima QSM. I am a trustee of Tangoio Marae and I am writing to you on behalf of Tangoio marae, Mana whenua and landowners whose marine environment are impacted by your pipe lines located on the seabed of our takutai moana at Whirinaki. You have sent letters to the residents of Whirinaki, and Petane marae yet we at Tangoio Marae have not received any correspondence. Tangitu moana including the area known as Whirinaki inform that we have a claim with the Waitangi Tribunal under the MACA claim. Tangata whenua are kaitiaki of our waters and ocean Tangi Tu which stems from Waikare to Ahuriri.</p> <p>The Tangoio marae Trustees do not approve or condone you claiming ownership of 200m either side of the pipeline. These pipelines are your responsibility. The moana and seabed is our responsibility. You cannot claim this area under the sea because it is in the ocean. Maori respect land under the sea in the same context as land not covered by water.</p>	Letter sent from Pan Pac

Name		Feedback	Response
		<i>We register our opposition to your application and will seek an opportunity to express our concern face to face, as is our custom.</i>	

Volume 2

Background References and Reports

General

Hawke's Bay Marine Information: Review and Strategy' (HBRC publication 4806. Report No. RM16-21),

Hastings District Council

1. East Clive, Hawke's Bay Hastings Outfall Stage 2 Assessment (HDC), prepared by MetOcean - August 2020
2. Hastings Outfall Pipe Inspection Report, prepared by Stantec NZ - September 2019
3. Hastings Outfall Risk Assessment Report, prepared by Stantec NZ - December 2020
4. Repair Report on the leak on the Hastings WWTP Main Outfall Pipeline, prepared by Stantec NZ - July 2017

Napier City Council

5. Historical Repairs - Awatoto Sewer Outfall Underwater Inspections - Leak Details (Dwg S1124-1), prepared by Napier City Council - September 2003
6. Napier City Wastewater Ocean Outfall, Napier Outfall Assessment (NCC), prepared by MetOcean - October 2020
7. Napier Ocean Outfall Inspection Report (N00I01 010220), prepared by New Zealand Diving and Salvage Limited (25 January to 1 February 2020)
8. Napier Outfall and Diffuser Inspection Report 2016 Incorporating Follow-Up Inspection, prepared by OCEL Consultants NZ Limited - December 2016
9. Napier Outfall Leak and Diffuser Inspection and Repairs (N0LD01 050520), prepared by New Zealand Diving and Salvage Ltd (30 April to 5 May 2020) - May 2020
10. Napier Wastewater Outfall Emergency Response Plan, prepared by Napier City Council - October 2020

Hawkes Bay

1st Floor, 100 Warren Street South
Hastings 4122
PO Box 13-052, Armagh
Christchurch 8141
Tel +64 6 873 8900

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