



Far North District Council



AGENDA

MOTUTANGI DRAINAGE AREA COMMITTEE

CONFERENCE ROOM
TE AHU
CORNER OF MATTHEWS AVE
AND SOUTH ROAD, KAITAIA

MONDAY 27 MARCH 2017

COMMENCING AT 3:00 PM

Committee Members:

Lawrie Atkinson
Paul Harvey
Bob Campbell
Neil Thompson

FAR NORTH DISTRICT COUNCIL

MOTUTANGI DRAINAGE AREA COMMITTEE MEETING

MONDAY 27 MARCH 2017 COMMENCING AT 3:00 PM
TE AHU
CORNER MATTHEWS AVENUE AND SOUTH ROAD
KAITAIA

A G E N D A

Item

1.0 APOLOGIES AND DECLARATIONS OF INTEREST

Members need to stand aside from decision-making when a conflict arises between their role as a Member of the Committee and any private or other external interest they might have. This note is provided as a reminder to Members to review the matters on the agenda and assess and identify where they may have a pecuniary or other conflict of interest, or where there may be a perception of a conflict of interest.

If a Member feels they do have a conflict of interest, they should publicly declare that at the start of the meeting or of the relevant item of business and refrain from participating in the discussion or voting on that item. If a Member thinks they may have a conflict of interest, they can seek advice from the Chief Executive Officer (Acting) or the Team Leader - Governance Support (preferably before the meeting).

It is noted that while Members can seek advice the final decision as to whether a conflict exists rests with the Member.

2.0 ELECTION OF CHAIRPERSON AND DEPUTY CHAIRPERSON

Document number A1839777

3.0 INFRASTRUCTURE AND ASSET MANAGEMENT GROUP

3.1 Motutangi Drainage Area Draft Management Plan

Document number A1840977

3.2 Motutangi Drainage Areas Works Programme Update for the Year Ending 2017

Document number A1839783

3.3 Motutangi Drainage Areas Works Programme for the Year Ending 2018

Document number A1839782

4.0 CLOSE OF MEETING

MEETING: MOTUTANGI DRAINAGE AREA COMMITTEE
27 MARCH 2017

Name of item: ELECTION OF CHAIRPERSON AND DEPUTY
CHAIRPERSON

Author: Kate Barnes - Team Leader Governance Support

Date of report: 9 March 2017

Document number: A1839777

Executive Summary

The purpose of the report is to explain the procedure for the election of the Chairperson and Deputy Chairperson of the Committee and to elect a Chairperson and Deputy Chairperson.

Recommendation

THAT the Motutangi Drainage Committee uses Voting System _____ to elect a Chairperson and Deputy Chairperson for the triennium October 2016 to October 2019.

AND THAT the Motutangi Drainage Committee elect _____ as Chairperson for the triennium October 2016 to October 2019, in accordance with Standing Orders.

AND THAT the Motutangi Drainage Committee elect _____ as Deputy Chairperson for the triennium October 2016 to October 2019, in accordance with Standing Orders.

1) Background:

The first meeting of the Committee will be presided over by the Meetings Administrator until the Chairperson is elected.

2) Discussion and options

When electing a Chairperson or deputy Chairperson the committee must resolve to use one of the following two voting systems.

System A

The candidate will be elected or appointed if he or she receives the votes of a majority of the members of the local authority or committee who are present and voting. This system has the following characteristics:

- (a) there is a first round of voting for all candidates;
- (b) if no candidate is successful in the first round, there is a second round of voting from which the candidate with the fewest votes in the first round is excluded; and
- (c) if no candidate is successful in the second round, there is a third round, and if necessary subsequent rounds, of voting from which, each time, the candidate with the fewest votes in the previous round is excluded.

In any round of voting, if two or more candidates tie for the lowest number of votes, the person to be excluded from the next round is resolved by lot.

System B

The candidate will be elected or appointed if he or she receives more votes than any other candidate. This system has the following characteristics:

- (a) there is only one round of voting; and
- (b) if two or more candidates tie for the most votes, the tie is resolved by lot.

3) Financial implications and budgetary provision

There are no financial implications or need for budgetary provisions as a result of this report.

4) Reason for recommendation

To elect a Chairperson and Deputy Chairperson in accordance with Standing Orders.

General Manager: Roger Ackers - General Manager Corporate Services (Acting)

Compliance schedule:

Full consideration has been given to the provisions of the Local Government Act 2002 S77 in relation to decision making, in particular:

1. A Local authority must, in the course of the decision-making process,
 - a) Seek to identify all reasonably practicable options for the achievement of the objective of a decision; and
 - b) Assess the options in terms of their advantages and disadvantages; and
 - c) If any of the options identified under paragraph (a) involves a significant decision in relation to land or a body of water, take into account the relationship of Māori and their culture and traditions with their ancestral land, water sites, waahi tapu, valued flora and fauna and other taonga.
2. This section is subject to Section 79 - Compliance with procedures in relation to decisions.

Relationship with existing policies and Community outcomes.	Not applicable.
Possible implications for the relationship of Māori and their culture and traditions with their ancestral land, water, site, waahi tapu, valued flora and fauna, and other taonga.	None.
Views or preferences of persons likely to be affected by, or to have an interest in the matter, including persons with disabilities, children and older persons.	Not applicable.
Does the issue, proposal, decision or other matter have a high degree of significance or engagement as determined under the Council's Policy #2124?	No
If the matter has a Community rather than a District wide relevance has the Community Board's views been sought?	The committee was established as a sub-committee of the Te Hiku Community Board.
Financial Implications and Budgetary Provision. Chief Financial Officer review.	There are no financial implications or the need for budgetary provision arising from this report. The Chief Financial Officer has not reviewed this report.

MEETING: MOTUTANGI DRAINAGE AREA COMMITTEE
27 MARCH 2017

Name of item: MOTUTANGI DRAINAGE AREA DRAFT MANAGEMENT PLAN

Author: Steven Smith - Stormwater Engineer, Infrastructure and Asset Management

Date of report: 13 March 2017

Document number: A1840977

Executive Summary

The purpose of the report is to ask the Committee to review the draft management plan for the Motutangi Drainage Area and then recommend that the Te Hiku Community Board adopts the draft management plan.

Recommendation

THAT the Motutangi Drainage Area Committee makes the following recommendation to the Te Hiku Community Board:

THAT the Te Hiku Community Board adopt the draft management plan as amended by Motutangi Drainage Area Committee.

1) Background

For years the Drainage Areas have been unconsented and have not been under any form of Management Plan since the Kaitaia Drainage Area Management Plan Draft in the year 2000.

This management plan will be supported by a schedule which will give technical guidance in how the FNDC maintain and design the drains.

2) Discussion and options

Staff have drafted this management plan with extensive research supported by site visits, along with information from the Committee members.

The plan outlines how the Committee should operate and how FNDC staff will manage the drainage area.

This Management Plan will be reviewed every 5 years unless asked by the Committee for a special review.

Committee members are asked to review the management plan and propose amendments if required.

3) Financial implications and budgetary provision

At the moment there are no financial implications directly associated with the plan, as all the work discussed has already been planned and budgeted for.

4) Reason for the recommendation

To propose the draft management plan to the Te Hiku Community Board for adoption.

Manager: Steve Little - Manager 3 Waters Operations

Attachment 1: Motutangi Drainage Area Draft Management Plan - Document number
A1839805

Compliance schedule:

Full consideration has been given to the provisions of the Local Government Act 2002 S77 in relation to decision making, in particular:

1. A Local authority must, in the course of the decision-making process,
 - a) Seek to identify all reasonably practicable options for the achievement of the objective of a decision; and
 - b) Assess the options in terms of their advantages and disadvantages; and
 - c) If any of the options identified under paragraph (a) involves a significant decision in relation to land or a body of water, take into account the relationship of Māori and their culture and traditions with their ancestral land, water sites, waahi tapu, valued flora and fauna and other taonga.
2. This section is subject to Section 79 - Compliance with procedures in relation to decisions.

Relationship with existing policies and Community outcomes.	Land Drainage Bylaw 2009
Possible implications for the relationship of Māori and their culture and traditions with their ancestral land, water, site, waahi tapu, valued flora and fauna, and other taonga.	Motutangi Drainage Area does include some Maori Land. All land owners are able to provide input into the management of the Drainage Area.
Views or preferences of persons likely to be affected by, or to have an interest in the matter, including persons with disabilities, children and older persons.	Depending on the recommendation the community board puts forward, this will affect only the land owners in question.
Does the issue, proposal, decision or other matter have a high degree of significance or engagement as determined under the Council's Policy #2124?	The matter does not have a high degree of significance to the community as a whole.
If the matter has a Community rather than a District wide relevance has the Community Board's views been sought?	The management plan will be presented to the Community Board for adoption.
Financial Implications and Budgetary Provision. Chief Financial Officer review.	Any work discussed in the management plan is currently budgeted. The CFO has not reviewed this report.



MOTUTANGI DRAINAGE AREA

MANAGEMENT AND OPERATIONAL PLAN

March 2017

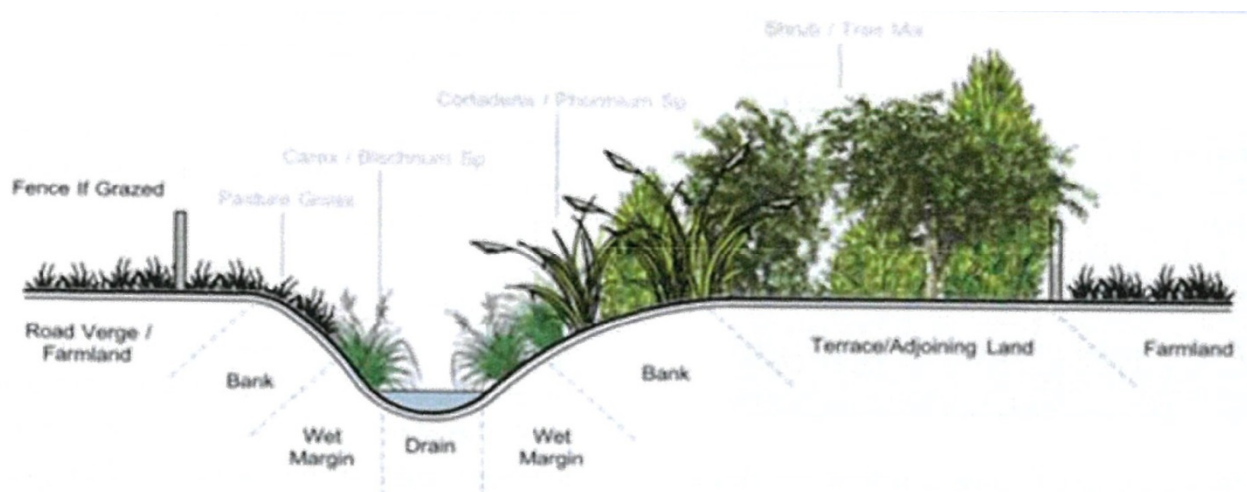


Table of Contents

1.	Physical Environment	5
	Climate.....	5
	Landforms.....	5
	Soils.....	5
	Water and Soil	5
	Flora and Fauna	5
2.	Description of Motutangi Drainage Catchment Area.....	5
	Department of Conservation.....	6
	Kaimaumau Scientific Reserve:	8
	Motutangi Marginal Strip	9
	East Beach Conservation Area.....	9
3.	The planned level of protection of the drainage area.....	9
4.	Objective of Motutangi Drainage Catchment Area Management Plan	9
5.	The Motutangi Drainage Area Management	10
6.	Statutory Requirements	10
7.	Establishment and Administration of the Motutangi Drainage Area.....	10
8.	The Planned Level of Protection of the Drainage Area	12
9.	Description of Assets within in the Drainage Area.....	12
	8.1 Motutangi Stream.....	12
	8.2 Main Outfall drain.....	13
	8.3 Bryan drain.....	13
	8.4 Beazley drain.....	13
	8.5 Aspin drain	13
	8.6 Cut to Lands End drain (scientific reserve boundary to main outfall).....	14
	8.7 Selwyn drain	14
	8.8 Seymour drain.....	14
	8.9 Bacica's drain	14
	8.10 Subritzky drain	14
	8.11 Changes to these drains to achieve DOC approval to continue the existing drain network.....	15
	8.11.a Motutangi Stream access track reconfiguration	15
	8.11.b Selwyn side drain closures.....	15
10.	Outline of the Objective of the Planned Maintenance Works	16
11.	Outline of the Maintenance Schedule for the Drainage Scheme.....	16

11.1	Drains within the Spraying & Machine cleaning programme.....	16
12.	Details of the Maintenance Schedule for the Drainage Scheme.....	17
11.1	Machine Cleaning	17
11.2	Fencing.....	20
11.3	Alligator weed.....	20
11.4	Oxygen and other common weeds.....	20
11.5	Culverts and gates	20
11.6	Monitoring and Works Outside the Programme.....	20
11.7	FNDC Staff, Resources, Information and Feedback Management.....	21
11.7.a	Policy.....	21
11.7.b	Information Management	21
11.7.c	Feedback Management	21
11.8	Pleliminary schedule for maintenance works	22
13.	Review date for the management plan.....	27
14.	Regulations relating to the Motutangi Drainage Area	27
15.	Description of the Rating/Funding Classification	31
15.1	Ratable Areas.....	31
15.2	Non Rated Land	31
15.3	Drainage Rates.....	31
16.	Motutangi Drainage Area Committee Formation and Operational Details	31
16.1	Purpose.....	31
	The purpose of the Motutangi Drainage Area Committee is:.....	31
16.2	Quorum.....	31
16.3	Responsibilities	32
16.4	Membership.....	32
16.5	Protocols.....	32
16.6	Values.....	32
16.7	Meetings	32
16.8	Standing Agenda Items	32
16.9	Reporting	32
16.10	Support	33
16.11	Funding and Budgets	33
16.12	Procurement of Goods and Services	33
16.13	Contacts with Media and Outside Agencies.....	33

16.14 Conduct of Affairs 33
16.15 Power to Delegate 33
16.16 Returning Standing Members..... 33
16.17 New Members 33
16.18 Removing Existing Committee Members 33

Appendix:

- A - Motutangi Drain Compartment Maps**
- B – Motutangi Drain Database**

DRAFT

1. Physical Environment

Climate

The Far North's climate is characterised by mild temperatures, humidity and windiness, particularly in coastal areas.

The Annual Average Rainfall measured at Kaitaia Airport is 1429mm.

At Motutangi the average rainfall is 1176mm annually.

There are sporadic heavy falls associated with depressions of tropical origin.

There is a clearly defined winter rainfall maximum with 30-40% of average annual rainfall typically falling in the period June to August.

Northland is also prone to summer droughts.

Landforms

The Motutangi Drainage Area catchment is complex and overlays a large unconfined aquifer with permeable sands from old sand dunes across the catchment with recharging of the aquifer through the permeable surface of the catchment and sandstone ridges and basins confining the aquifer in places.

The basins have formed perched water tables, i.e. lakes, in between the old sand dune ridges which peat has formed. The old Motutangi stream provides the outlet of the drainage area to the Houhora Harbour.

Soils

The flat area around Motutangi contains sand soils, as well as a large area of peaty loam and deep peat, along with some areas of clay loam.

Large areas of the flats have been classified as high value horticulture land.

The hill country contains primarily clay-loam and limestone soils. On steeper land, these soil types are prone to slipping, particularly during heavy rain.

Water and Soil

The Kaimaumau-Motutangi Complex (including East Beach and Lake Waikaramu Conservation Area) covers an area of more than 4,600 ha and stretches from the Rangaunu Harbour entrance near Kaimaumau, north-westwards to the Houhora Harbour mouth - a distance of approximately 15 km of continuous natural landscape.

About half of this Complex (1868 ha) is wetland with the remaining areas being in shrubland (2203 ha) and dunes (627 ha)³. Of the public conservation land within this Complex, 986 ha is classified as Kaimaumau Scientific Reserve; 247 ha as Lake Waikaramu Conservation Area; and 2269 ha as East Beach Conservation Area.

The remaining area (private land) is roughly divided as 1125 ha of shrubland (including gumland) and 163 ha of wetland.

A stretch of land approximately 5km long running along the western side of the Motutangi Stream is designated as the Motutangi Marginal Strip. □

The Motutangi stream collects some sediment where the gradient (and hence velocity) drops.

This is noticeably where there are issues with weed build up.

Weed build up has been particularly noticeable in the lowest reaches of the stream, before it discharges into the harbour.

Flora and Fauna

The vegetation is dominated by sedges, rushes and shrubs representative of the acidic, low fertility wetlands and dune systems that were once widespread and typical in the Aupouri Ecological District

2. Description of Motutangi Drainage Catchment Area

The Motutangi drainage area covers an approximate area of 30 km² and comprises ten primary drains which are depicted in Figure 1.



Figure 1- Drains within the Motutangi Drainage Area

The catchment is complex and overlays a large unconfined aquifer with permeable sands from old sand dunes across the catchment with recharging of the aquifer through the permeable surface of the catchment and sandstone ridges and basins confining the aquifer in places.

The basins have formed perched water tables, i.e. lakes, in between the old sand dune ridges which peat has formed.

The old Motutangi stream provides the outlet of the drainage area to the Houhora Harbour. Sediment loads in this type of stream are generally low.

The majority of the catchment has been drained and developed for pastoral farming. Old dunes and peat areas can be clearly observed.

The vegetation is dominated by sedges, rushes and shrubs representative of the acidic, low fertility wetlands and dune systems that were once widespread and typical in the Aupouri Ecological District

Department of Conservation

The Department of Conservation administers reserves within the drainage area.

Despite the implementation of the drainage area, a remnant of the wetland remains intact, known as the Kaimaumau-Motutangi Wetland.

The remaining wetland is administered by the Department of Conservation (DOC) and comprises the following areas (Figure 2 depicts extent of reserves).

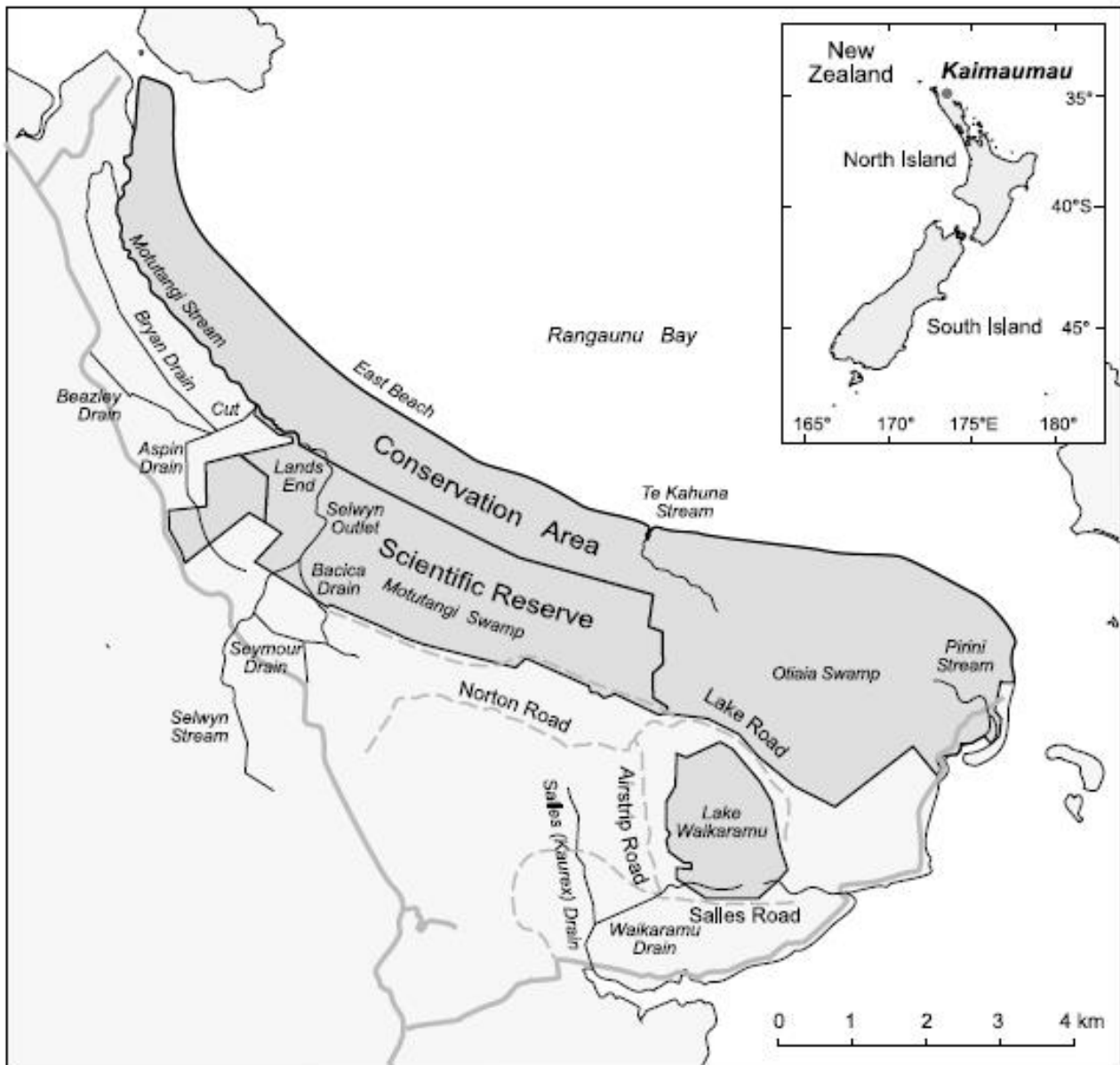


Figure 2 – Map for the Motutangi Drainage Area

The Northland Conservation Management Strategy, describes the location in detail. In summary the distinctive features are:

- Significant example of a peat bog and wetland system
- One of Northlands most important podzol gumlands occurs at Kaimaumau
- Priority ecosystems the Department considers nationally important for natural heritage management in Northland on public conservation land - Kaimaumau Scientific Reserve and East Beach Conservation Area (part of), Motutangi/Waihuahua.
- The location is discussed in the CMS under Parengarena-Aupouri-Kaimaumau-Karikari Place.
- Two of New Zealand’s most outstanding harbour and estuarine habitats are present in this special area.

- Kaimaumau wetland is the third largest peat bog system in the country, and nearby are several shallow, ephemeral lakes, including Lake Ohia.
- The wetland's bed of ancient kauri roots provides an important habitat for a variety of threatened ferns, mosses, orchids, freshwater fish, forest and coastal broadleaf shrubland, and a wide variety of coastal and seabirds.
- Kaimaumau is notable for their high numbers of threatened plants, orchid communities, and the variety of coastal and forest birds they support.

Kaimaumau Scientific Reserve:

The Kaimaumau Scientific Reserve covers an area of 986ha and is designated as such pursuant to the Reserves Act 1977.

The Kaimaumau Scientific Reserve is of national and international importance to New Zealand due to its support of:

- *An appreciable number of rare, vulnerable or endangered species;*
- *Special value for maintaining the genetic and ecological diversity of the region because of the quality and peculiarities of its flora and fauna; and*
- *Special value of its endemic or animal species or communities.*

The reserve is nationally recognised for its outstanding ecological values.

It is a large wetland that supports a wide range of habitat types including acidic, infertile ferns, bogs and gumlands.

These provide habitat for at least 12 Threatened species, 14 At Risk species and four Regionally Significant species.

This Reserve is the highest ranked peat bog in Northland (Martin *et al* 2011)¹. Peat bogs such as this are one of Northland's rarest wetland types with less than 2% of their original extent remaining, and they continue to be at risk from development practices.

The waterways flowing through the reserve also hold high values for native fish, notably white bait and eel. The wetland is a perched water table supported by an underlying sandstone hardpan. Its main source source of water is rain falling on the wetlands surface, averaging 1176mm annually (Hicks *et al*, 2001)².

Hydrological processes affecting the Motutangi catchment have been outlined by Hicks *et al* (2001). This publication is based on an earlier review of options for managing the Kaimaumau wetland, carried out by DOC in 1997.

This report also summarises geological and botanical information known at the time.

The Northland Conservation Management Strategy, which has recently been signed off by the Minister for Conservation records the following actions relating to the Kaimaumau Scientific Reserve. "Actively manage water levels, plant pests, and fire risk in Kaimaumau to protect wetland habitats by liaising with Northland Regional Council and Far North District Council over the Motutangi Drainage Scheme".

The main threats to the reserve are all related directly or indirectly to the alteration of the natural hydrological regime in the area causing drying of the wetland. This has created habitat for weeds, which are affecting the integrity of the wetland and has made the area more susceptible to fires, and has caused peat mineralization and shrinkage.

The Selwyn, Cut to Lands End, and Bacica drains are located within the Kaimaumau Scientific Reserve resulting in some drainage of the wetland in the vicinity.

¹ Martin, T., Beadel, S., Goldwater, N., Rate, S., Kapa, M. 2011 *Ranking of top wetlands in the Northland Region Stage 4 – Rankings for 304 wetlands*. Contract Report No.2489 Wildland Consultants, Whangarei.

² Hicks, D.L., Campbell, D.J., Atkinson, I.A.E. 2001. *Options for managing the Kaimaumau wetland, Northland, New Zealand*. Science for Conservation 155. Dept. of Conservation, Wellington.

Motutangi Marginal Strip

The Motutangi marginal strip runs for approximately 5 kilometres from the intersection of the Main Outfall and Motutangi stream to the Houhora Harbour along the western side of the stream.

It was reserved under section 129 of the Land Act 1924 and now falls under the Conservation Act (s.24(c) of Conservation Act 1987).

Under section 24(c) of the Conservation Act, the purpose of a marginal strip is for conservation purposes, in particular:

- *The maintenance of water quality; and*
- *The maintenance of aquatic life and the control of harmful species of aquatic life; and*
- *The protection of the marginal strips and their natural values.*

The Motutangi Stream is flanked on its western bank by the Motutangi Marginal Strip.

East Beach Conservation Area

The East Beach Conservation Area covers two separate areas.

The eastern portion is approximately 2,100ha and runs along the length of east beach and borders the Motutangi marginal strip on the western boundary.

1,000ha of this area has been identified in the Deed of Settlement documents between the Crown and Ngai Takoto iwi, to be returned to Ngai Takoto following the passing of legislation.

The western portion of the East Beach Conservation Area is approximately 100ha and is located east of SH1.

The Motutangi Stream is flanked on its eastern bank by the East Beach Conservation Area, and a portion of the Aspin and Subritzky drains cross the western extreme of the East Beach Conservation Area.

The Cuts to Lands End drain is flanked on both sides by the East Beach Conservation Area.

3. The planned level of protection of the drainage area

The Motutangi drainage scheme is to be maintained for the primary purpose of providing for pastoral farmland drainage and the protection of land from flooding, while complying with relevant regulations relating to the catchment area.

A concession application will be lodged with the Department of Conservation in late 2015 to formalise easements for the drains and associated assets that traverse the Scientific and Conservation Reserves. Once the concession is awarded, this Management Plan may need to be modified to reflect any measures required by that concession.

A resource consent application will be lodged with the Northland Regional Council (NRC) in late 2015 to formalise occupation and use of the land drainage area. Once resource consent is granted, this Management Plan may need to be modified to reflect any measures required by that consent.

Description of assets within in the drainage area

A description of each drain, and associated assets, are provided below.

4. Objective of Motutangi Drainage Catchment Area Management Plan

The purpose of this Management Plan is to:

- Formalise the purpose of the Motutangi Drainage Area and its assets
- Document the objectives, policies, and methods of implementation for the management of the Motutangi Drainage Area and its assets
- Provide an operational plan of the necessary works and procedures to put into effect the purpose and policies of the Motutangi Drainage Area
- Cover the maintenance of existing assets, proposed upgrades, and the means of funding the proposed works

- Provide general information in support of resource consent(s) from the Northland Regional Council to undertake the necessary maintenance works contained in the management and operational plan
- Work alongside DOC to the benefit of the environment and the Motutangi Drainage Area assets.

5. The Motutangi Drainage Area Management

The Far North District Council (FNDC) oversees the management of a series of drainage areas in the Far North.

The origin of many of these drainage areas date back to the early 20th century, and were generally developed for the purpose of converting wetlands and swamps into productive land.

They were expanded to provide a measure of safety for the districts urban areas.

Recently the management of these drainage areas was split between the FNDC (farm drainage generally) and NRC (rivers and main tidal flows) to maintain the standard/quality of land and drainage.

The FNDC liaise with and obtain advice from the relevant drainage committees.

6. Statutory Requirements

Various legislation gives Council power to manage, administer, fund and carry out physical works within the Motutangi Drainage Area. Legislation also imposes controls on the drainage area assets and work carried out on them and, as such, imposes obligations on Council. This section lists all such legislation and their implications for the Motutangi Drainage areas.

The most relevant acts are as follows :

- Local Government Act
- Rating Powers Act
- Soil Conservation and Rivers Control Act
- Resource Management Act
- Building Act
- Other Legislation

The assets to which the legislation applies are recorded in the Council information system. Maintenance and upgrading work on the assets is recommended in the various sections.

7. Establishment and Administration of the Motutangi Drainage Area

Settlement and development of swamp land started prior to the 1900's with gumdiggers forming the initial drains and tracks. The New Zealand Government, Lands and Survey Department developed significant areas of land to be subdivided into sections and later sold to settlers who would develop the swamps into productive agricultural land. The majority of the development occurred after the 1st World War.

In 1913 the Kaitaia Land Drainage Act passed, making the area subject to the Land Drainage Act 1908, with the exception that a board of 4 trustees was to be applied.

The Motutangi Drainage Area was developed from the 1920's (through the now East Beach Conservation Area) up until the late 70's (through the now Kaimaumau Scientific Reserve).

At the time the land was unoccupied crown land, however the reserves were gazetted in 1988 and 1984 respectively.

In 1926 the Mangonui County Council agreed to act as the Drainage Board and in 1928 the Motutangi swamp was declared a Drainage District.

A hurricane in April 1959 stripped the Marram grass cover from the sandhills and large sand drifts blocked the Motutangi outlet; the Government funded the remedial works in May 1956.

In 1975 the Motutangi Drainage District was extended by an additional 688 ha.

With changes in legislation, the term Drainage District no longer applies and pursuant to the Local Government Act 1974 this Drainage District is now referred to as a Drainage Area. The drainage area is located in Motutangi (contact Council for the location of these schemes).

The agricultural drainage areas have been funded through a combination of private work by landowners and public works by the former Ministry of Works, the local territorial authority, which was the Mangonui County Council until 1989 and is now the Far North District Council (FNDC) and the (now defunct) Soil Conservation and Rivers Control Authority.

Council funding has been obtained through a specific drainage rating classification.

In 2013 the Northern Drainage Committee (NDC) was established. NDC was made up of local representatives from each drainage area, to advise Council on a programme of works for the respective drainage areas.

This (NDC) zone has since been split into four sub areas, Kataia, Motutangi, with the Waiharara/Kakino areas working together as one sub group.

In 2015 the Motutangi Drainage Area Committee was established as a Committee of the Te Hiku Community Board (THCB).

The Motutangi Drainage Area Committee is comprised of one representative from the THCB and five ratepayers from within the defined area of the Motutangi Drainage Area.

The purpose of the Motutangi Drainage Area Committee is to represent and consult with the ratepayers of the Motutangi Drainage Area to make recommendations to the THCB in respect of all matters pertaining to the management of the Motutangi Drainage Area.

The representatives of these areas consider what maintenance is required and then set an order of priority. These works can relate to improving accessibility of the drains for maintenance crew, as well as spraying and machine cleaning programmes.

The general administration of the Motutangi Drainage Area is undertaken by the FNDC Stormwater Engineer who undertakes the following administrative tasks:

- Inspect the physical assets of the Motutangi Drainage Area.
- Liaise with the members of the Motutangi Drainage Area Committee.
- Prepare the Annual Maintenance Works Programme and budgetary estimates.
- Prepare reports for the Motutangi Drainage Area Committee and THCB meetings.
- Issue instructions to the contractors for the agreed Annual Maintenance Works Programme.
- Ensure all works are being undertaken in accordance with all FNDC Health & Safety Policies and Procedures.
- Certify all payments on completion of the works.
- Liaise with Northland Regional Council, Department of Conservation and Ngai Takoto as and when required.

8. The Planned Level of Protection of the Drainage Area

The Motutangi drainage scheme is to be maintained for the primary purpose of providing for pastoral farmland drainage and the protection of land from flooding, while complying with relevant regulations relating to the catchment area.

A resource consent application will be lodged with the Northland Regional Council (NRC) in 2017 to formalise occupation and use of the land drainage area. Once resource consent is granted, this Management Plan may need to be modified to reflect any measures required by that consent.

A resource consent application will be lodged with the Northland Regional Council (NRC) in 2017 to formalise occupation and use of the land drainage area. Once resource consent is granted, this Management Plan may need to be modified to reflect any measures required by that consent.

9. Description of Assets within in the Drainage Area

Overview

Much of the drainage development in the past has been influenced by the necessity to reduce the flooding in the Motutangi and Awanui urban areas. However, extensive works are also in place to protect the rural land and lower groundwater levels to improve the productivity of the land.

Description

The Motutangi Drainage Area has various assets and works associated with it. The farm drainage works consist primarily of a network of open drains. The flood protection works consist primarily of stop banks, channel improvements, overflow channels, detention areas and flood gates. Some of the works provide both flood protection and farm drainage functions.

A description of each drain, and associated assets, are provided below. These are spatially defined in the schedule of assets, **attached as appendix 2**

8.1 Motutangi Stream

The Motutangi Stream is a tidal stream with a sand bottom trapped between two sand dune ridges. The flow within the stream is relatively constant with little plant growth in the lower reaches due to the presence of salt water. In several places erosion of the stream bank has occurred with further erosion possible where exposed sand exists.

For the majority of its length, the western side of this stream is gazette as marginal strip and is managed by DOC.

The lower reaches of the stream are an important spawning area for white bait species inanga, which rely on stream side vegetation to lay their eggs.

Cattle and domestic pigs currently have access to the western side of the stream for approximately 4km.

In keeping with NRC guidelines for the management of waterways these areas should be fenced to exclude stock and encourage riparian vegetation.

The eastern side of the stream is classified as East Beach Conservation Area.

The stream is crossed in several locations by bridges and other structures, which have been built without the necessary approvals and concessions of either DOC or FNDC; these should be either authorized or removed to prevent further unauthorized use.

For most of its length an access track has been developed down the eastern side of the stream to provide access for drain cleaning by machine, and spraying of the stream.

This track varies in its width from 4-15m wide. Spoil from drain clearing has been deposited along the eastern length of the stream and into the East Beach Conservation Area.

This has created weed invasion and problems into the reserve, including pampas, tobacco weed, and wattle.

8.2 Main Outfall drain

The Main Outfall Drain was constructed by machine effectively straightening and shortening the old Motutangi Stream.

A section of the Main Outfall Drain has been cut through a larger sand dune which has the potential to erode and raise the invert level.

Bank collapse has occurred over time along the complete length of the drain with ongoing machine cleaning widening the invert and steepening the batters.

8.3 Bryan drain

The Bryan drain provides pastoral drainage to private property.

Machine cleaning over the years has caused steepening of the batters and some bank collapse has occurred, but not as severe as the main canal.

Council maintains a 1200 culvert which provides a crossing for machines. A bridge and five culverts provide private crossings.

These are the responsibility of the owners. At chainage 1400 meters there is a 450mm diameter culvert which has approximately 300mm fall, i.e. it raises the upstream water level by 300mm.

At the intersection with State Highway 1, a 600 mm diameter culvert has approximately 1.0 metres fall i.e. it raises the upstream water level by 1.0 metre.

8.4 Beazley drain

The Beazley drain provides pastoral drainage to private property.

A culvert crossing near the main canal provides machine access.

An exposed sand ridge on the left side of the drain has the potential to run off into and raise the upstream water level. Stabilization of the sand should be undertaken.

Suitable area is available on the true right side of the drain for diversion of the drain away from the sand dune while maintaining the existing drain length.

At chainage 1300 meters the drain was excavated through sandstone which if lowered could provide an extra 300mm of fall upstream.

A check is required to ensure no artesian groundwater will be released if the sandstone is fractured.

8.5 Aspin drain

The Aspin drain is a man made drain which has straightened and shortened the old Motutangi Stream.

The flow velocity is faster in the lower reaches than in the upper reaches of the drain suggesting two different grades exist.

A portion of this drain runs through East Beach Conservation Area before it flows into the Main Outfall drain. Along this section of the drain the land to the east has been cleared and informally grazed and its conservation values have already been compromised.

The western side of the drain however has not been cleared. For this reason access for drain clearing and spraying should only take place from the eastern bank.

This area is peat and over drainage threatens the environmental values of the reserve.

The drying out of the peat that has already occurred along the western edge of the drain has led to the introduction and proliferation of weed species such as pampas and if left unmanaged this has the potential to undermine the conservation values of the remaining wetland in the area.

Two bridges and two culverts provide access across the drain.

These private structures are the responsibility of the owners.

However, it is assumed one of the structures is used by the contractor's machine to provide access to the eastern side of the drain.

This structure should be inspected and certified by a suitably qualified engineer with structural experience.

8.6 Cut to Lands End drain (scientific reserve boundary to main outfall)

This 1km section runs from the fenced boundary of the scientific reserve to the exit of the main outfall drain into the Motutangi Stream. Both sides are classified as East Beach Conservation Area.

However the conservation area on the western side has been incorporated into the neighbouring farm and is grazed, with cattle having access to the water way.

The Cut to Lands End has steady flows and has a sandstone invert. Land either side of the drain is susceptible to flooding.

One structure provides access across to the Reserve. This is a private structure which has not been built with the authority of the Department of Conservation; a concession application will be lodged with DOC to formalize this structures presence.

In places spoil from the drain cleaning has been deposited along the eastern edge of the stream into the East Beach Conservation Area. This has created weed invasion problems into the reserve.

Machine cleaning of the stream along this section is to be carried out from the western side.

8.7 Selwyn drain

The Selwyn Drain runs from the SH1 east through the Kaimaumu Scientific Reserve. The drain was cut through sandstone in the lower reaches and peat in the upper reaches around 1978 before the reserve was gazette.

The drain takes water from an area referred to as the 'Selwyn Swamp', an area of farm land on the western side of the SH1, via the Seymour and Bacica's drains.

As the drain flows from west to east the volume of water increases indicating that the drain is not only taking water from the farm land above the Scientific Reserve but also from the surrounding Scientific Reserve wetland.

The establishment and maintenance of the access track along the edge of the Selwyn, including the addition of side drains and culverts, has further compounded this issue.

Through the reserve, access is maintained on the western side of the Selwyn drain only.

8.8 Seymour drain

The Seymour drain is a small drain with a slow flow, and low grades.

Land drained in the upper reaches was developed for agriculture, while land in the lower reaches is privately owned swamp.

8.9 Bacica's drain

The lower reaches of Bacica's drain are cut through wetland with sandstone invert.

The upper reaches are cut through peat and drain agricultural land, at the top end further land is presently being developed. Good grades are available.

After leaving private property, this drain runs through the Kaimaumu Scientific Reserve before flowing into the Selwyn drain.

Access is provided through the Scientific Reserve, from the farmland down approximately 100m on the western side of the drain. No access or maintenance is carried out for the remaining section of drain.

8.10 Subritzky drain

This drain provides drainage to the eastern side of SH1, and an approximately 200m wide portion of the drain runs through East Beach Conservation Area.

8.11 Changes to these drains to achieve DOC approval to continue the existing drain network.

The following upgrades are required to ensure regulatory compliance is attained:

8.11.a Motutangi Stream access track reconfiguration

The existing access track developed down the eastern side of the Motutangi Stream (which varies in width from 4-15m wide) needs to be widened to allow for the safe use of excavators in stream cleaning operations.

The access track needs to be widened to at least 6m and in some areas at least 11m. This track reconfiguration needs to be marked out prior to works commencing, to ensure as little as possible native vegetation clearance occurs.

The widening of this track will be included in the DOC Concession application.

Designated iwi representatives shall be given the opportunity to be present during track widening to ensure Tikanga is followed if any remains are disturbed. Ngai Takoto have advised DOC that they are prepared to carry out this monitoring work at not cost to the drainage scheme.

Prior to track widening work commencing, sensitive areas will need to be GPS recorded, and marked on site to avoid spoil being pushed further into them.

In areas where spoil cannot be pushed east, alternative methods for depositing/removing spoil will be used.

8.11.b Selwyn side drain closures

Existing side drains feeding into the Selwyn, which are not part of the scheme, will be blocked to attempt to stop drying out of these areas. Refer to Figure 3 below for the approximate location of these side drains.

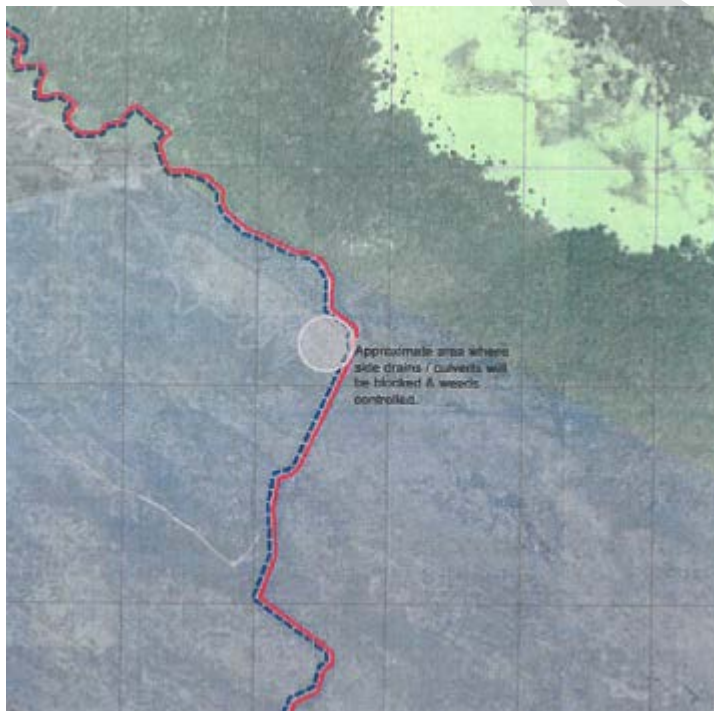


Figure 3 Approximate location on the Selwyn drain where side drains are to be blocked.

Assessment of any built structures (bridges, culverts, etc.) required to facilitate maintenance of the drainage scheme, to determine compliance with building code. Should physical upgrades be required, building consents will be obtained and the structures will be upgraded.

A schematic plan of the assets and a register of drains (including a description of their desirable cross section shape and size) is available from the FNDC.

10. Outline of the Objective of the Planned Maintenance Works

To manage and maintain the existing scheme assets and works in the most economically efficient manner such that the system:

- 9.1. Meets its primary purposes of providing for farm drainage and the protection of land from flooding in accordance with the relevant objectives in Council's *Strategic Plan, Drainage*; and meets its statutory requirements.
- 9.2. To improve land productivity through improved drainage and reduced duration of flood inundation.
- 9.3. To have all works completed in a manner sensitive to the environment and creating minimal disturbance compatible with the scope of the works.

To work within the requirements and aims of DOC, NRC and FNDC.

11. Outline of the Maintenance Schedule for the Drainage Scheme

Each year the drains are checked and their condition assessed.

The data is then used to provide a program for machine cleaning, spraying and other associated works in the Motutangi Drainage Area.

This program is then put up for approval at the next meeting of the committee and community representative.

Normally the drain cleaning will be carried out in late summer or early autumn, to remove any large weed mats/growths that formed over the spring - summer period as well as reshape and batter the drains.

This allows time for grass to re-establish before the peak rain falls are expected and will help prevent increased erosion of the newly formed drain embankments.

In addition to planned works such as machine cleaning of the drains, annual spraying is also undertaken. Spraying is the only form of regular maintenance that is carried out on the drains and unless advised, only the centre of the drain/weed is sprayed. This reduces the effect on the grass established on the embankment.

Another form of regular maintenance in the near future will be the trimming of established grass on the drain embankments.

Currently the majority of the drains will need to be reshaped/have batters formed before this action is required.

The maintenance schedule has been established to maintain the drains at or better than the current levels.

Below is a summary of the drains, where regular maintenance is carried out upon these drainage scheme assets:

11.1 Drains within the Spraying & Machine cleaning programme

Motutangi Stream

Total Length: 2,600 m

Main Outfall Drain

Total Length: 1,150 m

Bryan Drain

Total Length: 2,900 m

Beazley Drain

Total Length: 2,050 m

Aspin Drain

Total Length: 2,250 m

Cut to Lands End Drain

Total Length: 1,700 m

Selwyn Drain

Total Length: 2,950 m

Seymour Drain

Total Length: 750 m

Bacicas Drain

Total Length: 2,050 m

Subritzky Drain

Total Length: 160 m

12. Details of the Maintenance Schedule for the Drainage Scheme

All land owners are required to comply with the FNDC Land Drainage Bylaw 2009.

The key sections are:

- There must be no obstructions which interfere with the access for plant or machinery to and along the drainage channel or parts thereof and in particular within 10 m of the drain, Clause 3.1. (trees planted too close are a major issue).
- Grazing stock must be excluded from the drainage channel, Clause 5.7.
- There must not be damage caused to the drainage channel, due to stock accessing the drainage channel for water, Clause 11.1.
- Remove flood debris or other recently deposited material that prevents the free flow of water, from waterways and/or floodgates.

and

- To ensure access to drains is available at all times in accordance with the policies of this management plan. This includes the control of vegetation outside the tops of drain banks

11.1 Machine Cleaning

Land owners adjacent to all drains need to be aware of the influence of DOC, NRC requirements and the discharge of silt downstream. To continue to operate these drainage schemes, the movement of silt needs to be minimised.

The most practical solution is to batter the banks back at the time of machine drain cleaning. This will progressively stop virtually all bank erosion and most of the silt movement. This will also minimise cost.

A few notes and requirements with machine cleaning and battering are as follows:

- This will require fences to be moved back from the edge of drains to allow the battering of the drain banks.
- Different soils require different batter angles but as a guideline the angles will be between 30 to 40 degrees.
- Once battered the banks will no longer be sprayed at all, only machine trimming being carried out.
- The spraying will be confined to weed growth in the centre, un-battered section of the drains.
- Any mats will be removed by machine without cutting into the bank batters, using a weed rake wherever possible.

By using these methods and drain shape, DOC and NRC involvement will be minimised and the long term future of the drains maintained.

A good reference is the NRC publication “2014-Managing-your-drains-v2”.

Cleaning will generally involve the removal of the weed mat only, while leaving the sides of the drain untouched.

It is imperative that the drain banks are not cut into during normal drain cleaning.

When reshaping drains or creating new drains, batters and fences are required, along with the works being carried out during late spring to early autumn. This will assist in the reestablishment of vegetation and minimise silt movement.

DOC requirements related to drain cleaning

The following must be observed in relation to drain maintenance within the DOC reserves:

- All machines and vehicles will be cleaned and free of soil and any other material that could transport seeds, before entering the DOC managed reserves or marginal strip
- DOC is to be contacted two weeks prior to any machinery entering the reserves, to enable DOC time to organize biosecurity monitoring of equipment should it choose to
- High threat weeds, such as Alligator weed, will be sprayed prior to removal, and maintenance is to be planned so that areas infested with high threat weeds are cleaned last to avoid weeds being transported throughout the scheme
- For weed spraying/control within the DOC reserves in the following drains, DOC must be contacted two weeks prior to works commencing, to give DOC the opportunity to observe the works. (Motutangi Stream, Aspin drain, Cut to Lands End drain, Selwyn drain, Bacica’s drain)
- To minimize the risk of non-target species being impacted on, DOC can assist weed spraying and control maintenance by either providing onsite supervision or written task specifications
- DOC will be able to provide the contractor with a list of High Threat weeds that need to be sprayed before commencing drain cleaning

The following works are not permitted to occur in the areas where the drains cross the DOC Reserves without obtaining a Department of Conservation Concession, and any other NRC approvals as may be required.

- Deepening of drains
- Earthworks or vegetation clearance (apart from mulching of approved access tracks as shown in Figure 4 below)
- Construction of new drains or drainage support structures

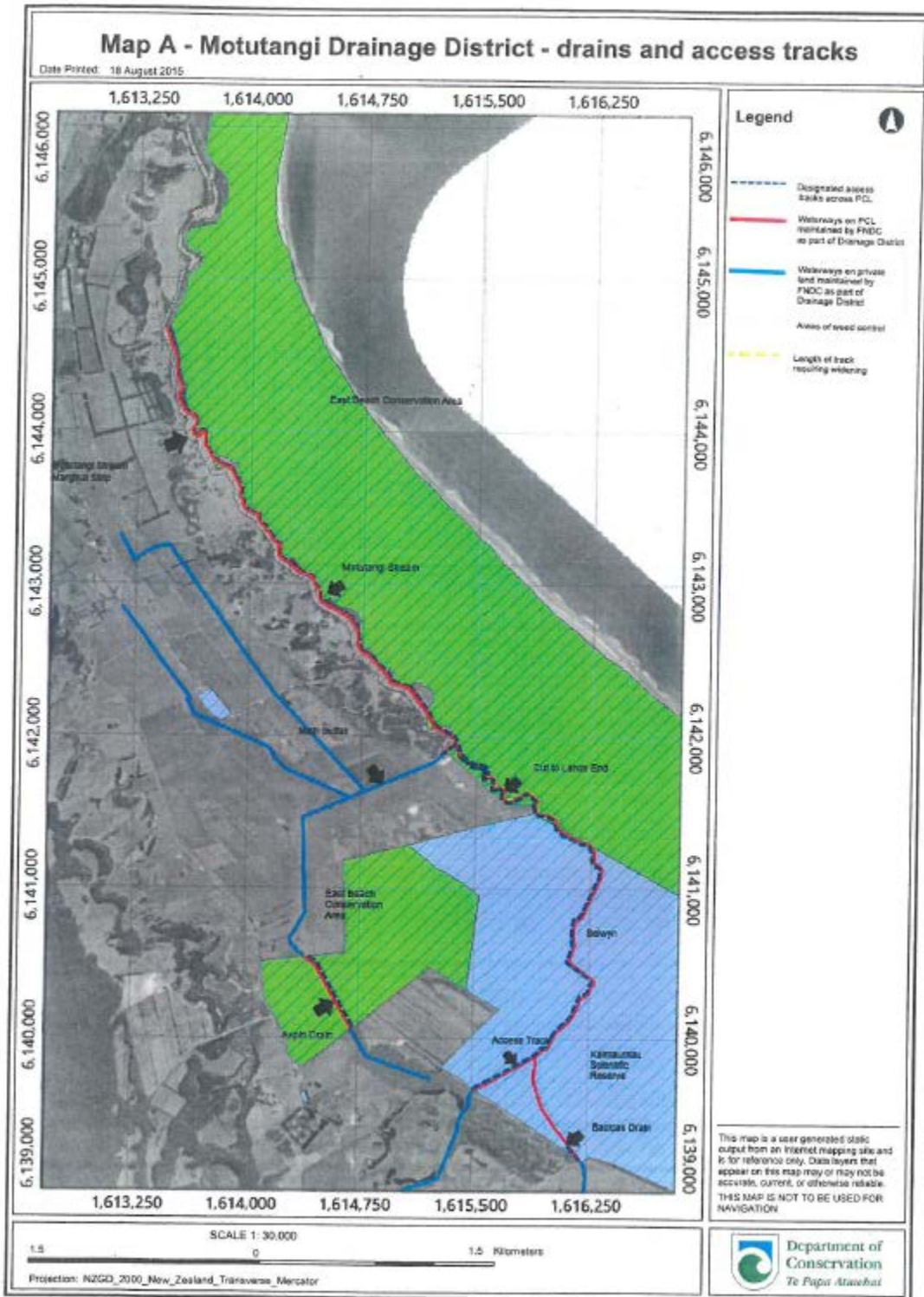


Figure 4- Drains and access tracks through DOC reserves

Disposal of drain cleaning

- All drain cleanings are spread along the access way's.
- If the landowner desires the drain cleanings to be placed elsewhere, it is at his cost for all the extra time and work.
- Any drain cleaning/silt must be placed at least 4m from the top of the drain bank, provided that this is not likely to raise the height of the machine access and creating future access/reach problems.
- If this is the case, the drain cleanings must be placed outside of the access track.
- Drain cleanings must be disposed of in such a way that they do not impede the overland flow of stormwater runoff from adjoining lands into the drains.

11.2 Fencing

Land owners are required to prevent stock from accessing drains.

The reasons are,

- Damage due to stock walking up and down banks and drains
- Silt movement along drains due to bank damage/collapsing and soil dragged in by stock
- Additional cost for drain cleaning due to slower work, generating a higher per metre rate
- More frequent drain cleaning

11.3 Alligator weed

High threat aquatic weeds (Alligator, Hornwort) will be sprayed prior to removal with machinery.

Where required these weeds will also be sprayed after removal.

Stock must not eat these weeds unsprayed.

An EPA "Permission for Use of Substances" & NRC consent is required specific to the areas to be sprayed, for the correct type of spray. The spray used has to be applied with considerable forethought as it can effect crop growth, for some distance downstream.

11.4 Oxygen and other common weeds

Spraying of these weeds is to be carried out on demand.

This will generally be twice a year, in the late Spring and Autumn.

11.5 Culverts and gates

Culverts and gates are to be installed wherever possible to allow continuous access along the edge of drains.

The cost of these shall be paid from out of the Motutangi Drainage Scheme rates.

The Motutangi Drainage Scheme committee members shall review the list of improvements to be undertaken and make their recommendation.

11.6 Monitoring and Works Outside the Programme

It is expected that landowners, contractors and council staff shall pool information to achieve a realistic picture of the condition and works required to maintain the current scheme.

If the Council representative receives an recommendation from at least 2 members of the committee for a specific works, when there is not a committee meeting programmed within 1 month., the works shall be accepted as if from the complete committee.

11.7 FNDC Staff, Resources, Information and Feedback Management.

11.7.a Policy

- That the assets of the Motutangi Drainage Area be maintained to, at all times, facilitate the policies of this Management Plan and its associated objectives, including all Resource Consent and statutory requirements and any other system requirements.
- The Council shall supply staff and resources as required in order to fulfil the Council's responsibilities.
- The Council staff shall work with the committee to achieve an outcome which minimises the expenses and maximises the long term benefits to the landowners and drainage system.

11.7.b Information Management

Policy

That an information management system, capable of facilitating the analysis necessary for the efficient management of the system, be established and maintained up to date.

Method

That a central computer spreadsheet database be maintained in the Far North District Council's computer system, and updating the following information at three-monthly intervals, as required:

- Drain lengths and locations
- Drain heights and GIS data
- Drainage rate paying landowners
- A summary of problems identified during the inspections
- Non-routine work undertaken (including the location, a description of the work, the date and cost)
- Complaints and requests from stakeholders (including the date and a brief description of the complaint/request (eg. "sediment in river at Bloggs Bend"))
- Information on flood events including (if known) the date, maximum flood level at monitoring points in the system, duration of inundation, damage caused and the findings of any flood gauging that is undertaken
- All other information collected

11.7.c Feedback Management

Policies

That a feedback system be put in place that:

1. Is readily accessible by stakeholders, both to report faults and to request improvements they feel the system would benefit from;

and

2. Facilitates the acknowledgment of requests and feedback in accordance with the Far North District Council's policy in this regard.

11.8 Preliminary schedule for maintenance works

Below is a summary of regular maintenance to be carried out on the drainage scheme assets.

Motutangi Stream		
Activity	Frequency	Timing
Track mulching	Annually	
<p>Drain spraying. Weeds (mostly Pampas and Wattle) will be controlled for at least 10m beyond the eastern edge of the track. DOC is to be contacted two weeks prior to any weed control work to enable DOC time to arrange supervision of weed control, should it choose to.</p>	Annually	Not during Aug-Nov
<p>Drain cleaning. Access from eastern side of the stream only. No depositing of spoil is permitted on the eastern side of the stream. All drain cleanings to be deposited and spread on tracks to ensure weeds don't spread into nearby wet areas.</p> <p>Within the DOC reserves, approximately 10% of instream vegetation on either side of the waterway will remain undisturbed to provide habitat and erosion control.</p> <p>Also within the DOC reserve, designated iwi representatives are to be given opportunity to observe all mechanical cleaning to ensure Tikanga is followed if remains are disturbed, and to ensure protection of harvest sites, and return of any eels and fish to waterways.</p>	Every 5 years	Not during Aug-Nov
Weed spraying	Annually	
Bridges/culverts inspected	Annually	
Bridges/culverts maintained	As required	

Note:

Spraying and mechanical cleaning of weeds in the Motutangi Stream is to occur in a manner, and at a time which reduces the effect to a acceptable level, within the reaches of waterways identified as potential inanga spawning habitat.

Main Outfall Drain		
Activity	Frequency	Timing
Track mulching		
Drain spraying		
Drain cleaning		
Weed spraying		

Bryan Drain		
Activity	Frequency	Timing
Track mulching		
Drain spraying	Annually	Early Autumn
Drain cleaning	On an 'as required' basis – to the lower reaches.	
Weed spraying		

Beazley Drain		
Activity	Frequency	Timing
Track mulching		
Drain spraying	Annually	Early Autumn
Drain cleaning	On as 'as required' basis – to the lower reaches	
Weed spraying		

Aspin Drain		
Activity	Frequency	Timing
Track mulching	Biennially (once every two years)	
Drain spraying	Biannually (twice a year)	
<p>Drain cleaning Within the DOC reserve, designated iwi representatives are to be given opportunity to observe all mechanical cleaning to ensure protection of harvest sites, and return of any eels and fish to waterways.</p> <p>All drain cleanings to be deposited and spread on tracks to ensure weeds don't spread into nearby wet areas.</p>	Every 2 years	
<p>Weed spraying. Note that within the East Beach Conservation Area, weeds within 10m of eastern edge of track and within 5m of western edge of drain are to be controlled.</p>	Annually	

Bridges/culverts inspected	Annually	
Bridges/culverts maintained	As required	

Cut to Lands End		
Activity	Frequency	Timing
Track mulching	Annually	
Drain spraying	Biannually	
<p>Drain cleaning. Machine cleaning to take place from western side of stream only, and no further spoil to be deposited in the East Beach Conservation Area.</p> <p>All drain cleanings to be deposited and spread on tracks to ensure weeds don't spread into nearby wet areas.</p> <p>Within the DOC reserve, approximately 10% of instream vegetation on either side of the waterway will remain undisturbed to provide habitat and erosion control.</p> <p>Also within the DOC reserve, designated iwi representatives are to be given opportunity to observe all mechanical cleaning to ensure Tikanga is followed if remains are disturbed, and to ensure protection of harvest sites, and return of any eels and fish to waterways.</p>	Every 5 years.	Not during Aug-Nov
<p>Weed spraying. Note that within the Scientific Reserve, weeds within 10m of western edge of track and within 5m of eastern edge of drain are to be controlled.</p> <p>Weed control to also extend where necessary to the side drains that are to be blocked in accordance with section 7.2 of this report.</p>	Annually	Not during Aug-Nov
Culverts inspected	Annually	
Culvert maintenance	As required	
<p>Monitoring: Within the Kaimaumau Scientific reserve: monitoring of wetland water levels and stream flows to quantify impact the current drains are having on adjoining wetland.</p>	Discuss frequency with DOC/iwi.	

Selwyn Drain		
Activity	Frequency	Timing
Track mulching	Annually	
Drain spraying	Biannually	Not during Aug-Nov
Drain cleaning.	Every 5 years.	Not during

<p>Within the DOC reserves, approximately 10% of instream vegetation on either side of the waterway will remain undisturbed to provide habitat and erosion control.</p> <p>All drain cleanings to be deposited and spread on tracks to ensure weeds don't spread into nearby wet areas</p> <p>Also within the DOC reserve, designated iwi representatives are to be given opportunity to observe all mechanical cleaning to ensure Tikanga is followed if remains are disturbed, and to ensure protection of harvest sites, and return of any eels and fish to waterways.</p>	<p>Access is maintained on the northern side of the drain only.</p>	<p>Aug-Nov</p>
<p>Weed spraying - within 10m of western edge of track and within 5m of eastern edge of drain are to be controlled.</p>	<p>Annually.</p>	
<p>Monitoring: Within the DOC reserves: monitoring of wetland water levels and stream flows to quantify impact the current drains are having on adjoining wetland.</p> <p>Refer Figure 4 for area of monitoring. DOC and Ngai Takoto would like to discuss with FNDC how they can support this monitoring.</p>	<p>Discuss frequency with DOC/iwi.</p>	

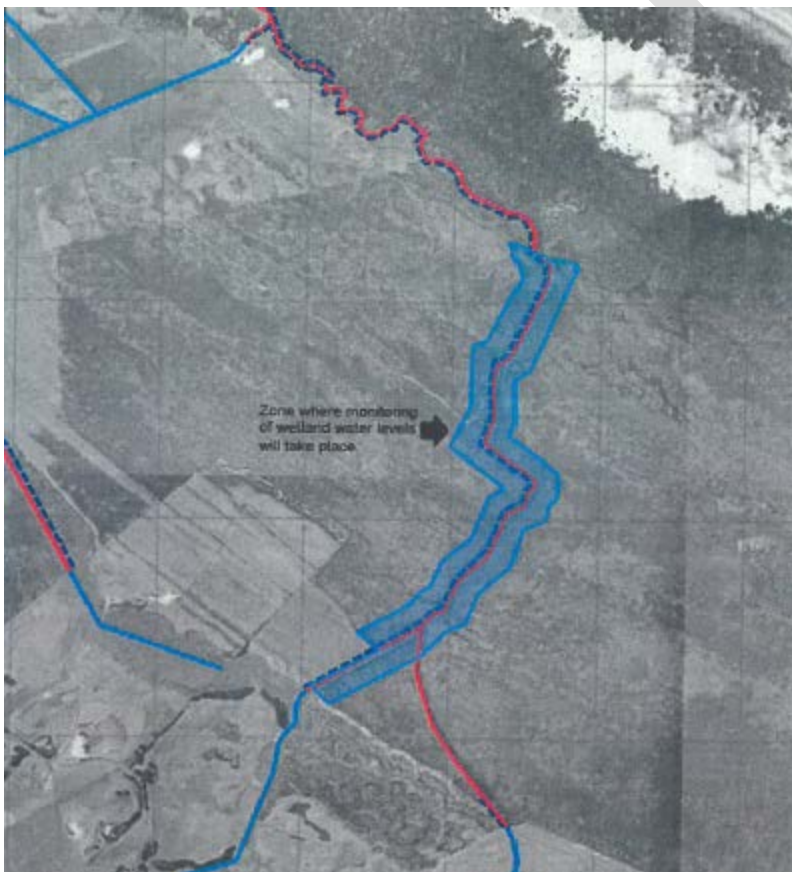


Figure 4- Extent of hydrological monitoring required on the Selwyn drain

Seymour Drain		
Activity	Frequency	Timing
Track mulching		

Drain spraying	Annually, or biennially when possible.	
Drain cleaning		
Weed spraying		

Bacica's Drain		
Activity	Frequency	Timing
Track mulching	Biennially	
Drain spraying	Biennially	
Drain cleaning. Within the Kaimaumu Scientific Reserve, work is only to be conducted along the designated 100m portion of this drain as depicted in Figure 5 below. All drain cleanings to be deposited and spread on tracks to ensure weeds don't spread into nearby wet areas. Designated iwi representatives to be given opportunity to observe all mechanical cleaning to ensure protection of harvest sites, and return of any eels and fish to waterways.	Every 5 years	
Weed spraying	Annually	



Figure 5 – Extent of hydrological monitoring required on the Selwyn drain

Subritzky Drain		
Activity	Frequency	Timing
Track mulching		
Drain spraying		
Drain cleaning		
Weed spraying		

13. Review date for the management plan

This management plan must be formally and comprehensively reviewed every five years, or sooner if a majority of drainage area ratepayers request a review at any other time.

Amendments to this management plan should be made through a formal process of consultation with the Motutangi Drainage Committee (Est 2016), followed by approval from the Far North District Council Infrastructure and Asset Management Committee.

It is noted that any amendments to the management plan may require approval of the Northland Regional Council and, possibly, a variation to one or more resource consents for the scheme.

14. Regulations relating to the Motutangi Drainage Area

The Resource Management Act 1991 (RMA)

This Act governs legislation for resource use in New Zealand, its purpose, contained in section 5 of this Act, is to promote the sustainable management of natural and physical resources, in a way that enables people and communities to provide for their social, economic, and cultural wellbeing, while sustaining the intergenerational potential of natural and physical resources, safeguarding the life supporting capacity of air, water, soil and ecosystems, and avoiding, remedying or mitigating any adverse effects on the environment.

The Act controls and administers the effects of the use of land, air, and water through a hierarchy of policies, standards, plans and consents.

Each set of controls is binding over those below them to the extent that they must not be inconsistent.

It imposes responsibilities on the Regional and District councils to minimise the effects of human activities and natural hazards on the environment.

This is carried out via objectives, policies, and methods of implementation contained in the Regional Policy Statement, Regional Plans and District Plans.

Any activities within the Motutangi Drainage Area must comply with these plans.

The relevant sections of the RMA are set out and discussed below.

Certain existing uses in relation to land protected

- (1) Land may be used in a manner that contravenes a rule in a district plan or proposed district plan if;
- (a) either
- (i) the use was lawfully established before the rule became operative or the proposed plan was notified;
- and
- (ii) the effects of the use are the same or similar in character, intensity, and scale to those which existed before the rule became operative or the proposed plan was notified;
- (b) or
- (i) the use was lawfully established by way of a designation; and

(ii) the effects of the use are the same or similar in character, intensity, and scale to those which existed before the designation was removed.

Comment: The Drainage Area was lawfully established as a Drainage District in 1913.

Far North District Council Bylaw

The Land Drainage Bylaw 2009, made in accordance with the provisions of Pt 8 of the Local Government Act 2002, Pt XXIX of the Local Government Act 1974 and the Land Drainage Act 1908, was developed for the purpose of enabling regulation of land drainage assets within the Far North District.

This Bylaw provides access to and along drains for maintenance purposes and sets out conditions for any landowner connecting a private drain into any Drainage Area.

Northland Regional Council Regional Water and Soil Plan

The Revised Proposed Regional Water and Soil Plan for Northland, 1998 controls the use of land and water resources of the Northland region. The policies of the Proposed Regional Policy Statement have been used in its preparation.

It should be noted that farm drains are specifically excluded from the provisions of Section 13 of the Resource Management Act. Therefore, disturbance of the beds of drains does not need resource consents.

However, the water in the drains is natural water and activities relating to it are therefore controlled in the Revised Proposed Regional Water and Soil Plan for Northland, 1998.

As discussed, the Motutangi Drainage Area assets are legally established under General Authorisation 9 in the Transitional Regional Plan, and, as such, no consents are required under that plan.

However, these provisions have not been carried into the regional plans prepared under the Resource Management Act.

None of these plans allows the damming or diversion of water to the extent that occurs as a result of the Motutangi Drainage Area assets.

The "Existing Use" provisions in Section 10 of RMA apply only to land use, not water.

Accordingly, consent(s) are required from the Northland Regional Council for the effect of the Motutangi Drainage Area activities effect on water.

Tables 1 and 2 lists the key assets in the Motutangi Drainage Area, the most common activities carried out to maintain them and possible major capital works, and the regional plan consents required for those assets and activities.

It is noted that even if consent is not required, the Revised Proposed Water and Soil Plan usually lists conditions that still must be complied with as part of the permitted activity.

In these cases, the location of the conditions is shown in the right hand column.

Existing Motutangi Drainage Area Assets	Resource Consent Required?	Comments, Consent Type and/or Relevant Plan and Section
Drains on farm land – 131 km maintained by FNDC. Refer to Appendix D	No	Beds of Farm drains excluded from the Resource Management Act.
Fixed structures – 178 floodgates/culverts. Refer to as shown in Appendix H.	No	S29.1.2 Revised Proposed Water and Soil Plan 1998.
<i>All existing Stopbanks, 21 km (refer to Appendix D) and other associated existing channel improvements (including cuts and diversions) that provide the channel capacity recommended in this management plan, the State Highway 1N overflow near Larmer Road and the overflow into the Whangatane Spillway.</i>	Yes	Water Permit. S27.3.4 Revised Proposed Water and Soil Plan 1998. This permit should include upgrading to the standards recommended in this Management Plan.

Table 1. Resource Consents Required for the Existing Motutangi Drainage Assets.

DRAFT

Management/ Maintenance Activity	Reference Section	Resource Consent Required?	Comments, Consent Type and/or Relevant Plan and Section
Maintenance Management, maintenance of free flows in rivers (except vegetation and silt removal).	9.5.4, 9.7	No	Permitted activity if approval of this Management Plan is obtained in accordance with the Soil Conservation and Rivers Control Act 1941.
Connections to Scheme Drains	9.10.2	No	s23.1(4) of the Revised, Proposed Water and Soil Plan 1998
Installation of Vehicle Crossings of Waterways	9.7.7	Yes	S24 of the Revised, Proposed Water and Soil Plan 1998
Removal of vegetation, including mangroves, from the streambank upstream of the CMA.	9.5.4	Possibly	If not complying with s35.1(4) of the Revised Proposed Water and Soil Plan 1998, land use consent under S35.3.
Removal of mangroves from the CMA	9.5.4	Yes	Revised Proposed Regional Coastal Plan 1998 rule 26.3.12b if blocking artificial drainage channels, otherwise prohibited.
Upgrading of stopbanks not included in the initial stopbank consent		Yes	Water permit under S27.3.4 of the Revised Proposed Water and Soil Plan 1998.
Installation of Overflow Channels	Refer report in App. A	Yes	Water Permit, S24.3.4 of the Revised Proposed Water and Soil Plan 1998.
Removal of silt from the river bed and the disposal of the resulting spoil	9.5.4	Yes	For removal/disposal in the coastal marine area (CMA), a coastal permit under S26.3.8 of the Revised Proposed Regional Coastal Plan 1998. For removal elsewhere, a land use consent under S27.1 or 27.3, S31.3 and S35.1 of the Revised Proposed Water and Soil Plan 1998. For disposal of spoil outside the CMA, refer to S32 to 35 of the Revised Proposed Water and Soil Plan 1998
Vegetation and weed control in farm drains.	9.6.1	Only with grass carp or some herbicides.	S18.1(3) of the Revised Proposed Water and Soil Plan 1998 for spraying. Department of Conservation license for Grass Carp.
Disposal of Farm Drain Cleanings	9.6.2	No	S32 to 35 of the Revised Proposed Water and Soil Plan 1998
Control of Stock Access to Rivers.	9.10.3	No	S35.1.1 Revised Proposed Water and Soil Plan 1998.
Placement of erosion control structures in rivers	Report in Appendix A, S9.7	No	S29.1.8 Revised Proposed Water and Soil Plan 1998.
Discharge from farm drains	9.10.2	No	23.1.4 Revised Proposed Water and Soil Plan 1998

Table 2. Resource Consents Required for the Existing Motutangi Drainage Management and Maintenance Activities. "CMA" = Coastal Marine Area.

15. Description of the Rating/Funding Classification

15.1 Ratable Areas

Existing rating classifications were developed in 2003 following a review of the individual drainage areas. There are three rating classifications A, B & C.

A class applies to all land with direct access to drains maintained under this Management Plan and would lose production if drains were totally blocked off.

B class applies to all other drained land connected indirectly to the drainage system.

C class applies to adjoining land that would lose access without the drains and by location has a more immediate disposal of excess rainfall to lower lying ground.

15.2 Non Rated Land

Non Rated land is classified according to location as either A, B or C. This covers wetland areas, bush covenants and private land with significant natural and aesthetic values to be protected as included in Far North District Council's database of indigenous vegetation.

15.3 Drainage Rates

The proposed drainage rates are calculated from the ratio of the rate per Ha based on Class A – 6, Class B – 3 and Class C – 1. The below table lists the properties which are subject to the rating classification, and the class applied to each property:

The rating base for the Motutangi drainage scheme is set out below:

Rating Category	Approximate Rating Base
A	452 ha
B	477ha
C	1647 ha

Rating is carried out in accordance with Local government Rating Act 2002. Targeted rates use the separate rates for the specific purpose of land drainage.

Rates are set each year around the proposed programme of maintenance as submitted by the Advisory committee.

16. Motutangi Drainage Area Committee Formation and Operational Details

16.1 Purpose

The purpose of the Motutangi Drainage Area Committee is:

- To represent and consult with the ratepayers of the Motutangi Drainage Area
- To make recommendation to the Te Hiku Community Board in respect of all matters pertaining to the management of the Motutangi Drainage Area
- To ensure the Motutangi Drainage Area ratepayers and the Te Hiku Community Board are well informed about matters of concern relating to the Motutangi Drainage Area
- To identify initiatives and improvements and make recommendations to the Te Hiku Community Board on how these improvements can be implemented
- To provide the Motutangi Drainage Area community with an opportunity to provide feedback to the Te Hiku Community Board
- Ensure open and free exchange of information, ideas and concerns between the Te Hiku Community Board and community.

16.2 Quorum

The Quorum is set at three.

16.3 Responsibilities

Work Programmes

Preparing the programme of work for the Motutangi Drainage area, relevant to the purposes of the Committee, which are:

- consistent with the Annual and Long-term Planning processes of Council
- in accordance with the conditions and requirements outlined in the Management Plan and resource consent conditions.
- Consistent with Policy #4302 - Northland River Management Policy.

Such programmes are to include budgetary provision for all costs associated with the work of the Committee.

Notifying the appropriate Council Staff of any Emergency Work required to be carried out.

Stakeholder Liaison

Liaise with all stakeholders as requested by the Council Officer responsible for the Motutangi Drainage Area.

16.4 Membership

The Motutangi Drainage Area Committee is to be appointed by resolution of the Te Hiku Community Board pursuant to the Standing Orders adopted by that Board.

One member of the committee must be a Community Board member.

16.5 Protocols

A chairperson and deputy chairperson must be elected pursuant to the standing orders adopted by the Te Hiku Community Board.

An agenda will be prepared and circulated 2 clear working days in advance of the meeting following a call for items to be notified to the Chairperson and pursuant to the Standing orders adopted by the Te Hiku Community Board.

16.6 Values

Advocacy - promote the public's trust and confidence in Council and the Community Board

Openness - communicating clearly and providing as much information as possible

Honesty - observing both the spirit and the letter of the law, policy and procedures

Respect - treating people with courtesy, observing their rights and recognising the different roles that others play in management and decision making

Responsiveness - dealing with issues within agreed timeframes

Consider the full range of costs and benefit of alternatives in making recommendations to Council

Ensure open and free exchange of information within the group

16.7 Meetings

The Motutangi Drainage Area Committee will meet twice a year as determined by the Te Hiku Community Board in the Schedule of Meetings.

Additional meetings may be held when required with the approval of the Chief Executive Officer.

16.8 Standing Agenda Items

Confirmation of previous minutes

A financial report provided by the Chief Financial Officer

Proposed Work Programme

16.9 Reporting

A report will be included in the Te Hiku Community Board agenda at the following meeting that conveys any recommendations to the Te Hiku Community Boards for adoption.

16.10 Support

Administrative support is provided by the Council's Governance Support team.

16.11 Funding and Budgets

Funding for the Committee will align with Council's Revenue and Financing Policy.

The Committee shall only recommend the expenditure of funding on purposes for which that funding was originally raised and in accordance with the budgets approved by Council through its Long-term Plan and Annual Plan.

Expenses will be funded from the Motutangi Drainage Targeted Rate.

16.12 Procurement of Goods and Services

The procurement of goods and services for the Motutangi Drainage Area will be in accordance with the Far North District Council Procurement Policy, Policy #2104-14 Procuring Goods and Services and the Procurement Manual.

16.13 Contacts with Media and Outside Agencies

The Committee Chairperson is the authorised spokesperson for the Committee in all matters where the Committee has authority or a particular interest.

Committee members, including the Chairperson, do not have delegated authority to speak to the media and/or outside agencies on behalf of Te Hiku Community board on matters outside the Committee's delegations.

16.14 Conduct of Affairs

The Committee shall conduct its affairs in accordance with the *Local Government Act 2002*, the *Local Government Official Information and Meetings Act 1987*, the *Local Authorities (Members' Interests) Act 1968*, The Hiku Community Board Standing Orders and Council Code of Conduct.

16.15 Power to Delegate

The Motutangi Drainage Area Committee may not delegate any of its responsibilities, duties or powers.

16.16 Returning Standing Members

The existing Motutangi Drainage Area Committee members shall be returned at the time of election unless they request otherwise.

16.17 New Members

A minimum of 2 existing Motutangi Drainage Area Committee members shall be required to propose the addition of a new member to the committee.

16.18 Removing Existing Committee Members

A unanimous vote by all of the other existing Motutangi Drainage Area Committee members shall be required to remove a current committee member.

Appendix A – Drain Compartment Maps

Figure 6 – Map Index for the Motutangi Area (Aerial)

Figure 7 – Map Index for the Motutangi Area (Property Map)

Figure 8 – Location and Length of the Motutangi Stream

Figure 9 – Location and Length of the Main Outfall Drain

Figure 10 – Location and Length of the Bryan Drain

Figure 11 – Location and Length of the Seymour Drain

Figure 12 – Location and Length of the Aspin Drain

Figure 13 – Location and Length of the Bacicas Drain

Figure 14 – Location and Length of the Beazley Drain

Figure 15 – Location and Length of the Cut to Lands End Drain

Figure 16 – Location and Length of the Selwyn Drain

DRAFT



Figure 6 – Map Index for the Motutangi Area (Aerial)



Figure 7 – Map Index for the Motutangi Area (Property Map)

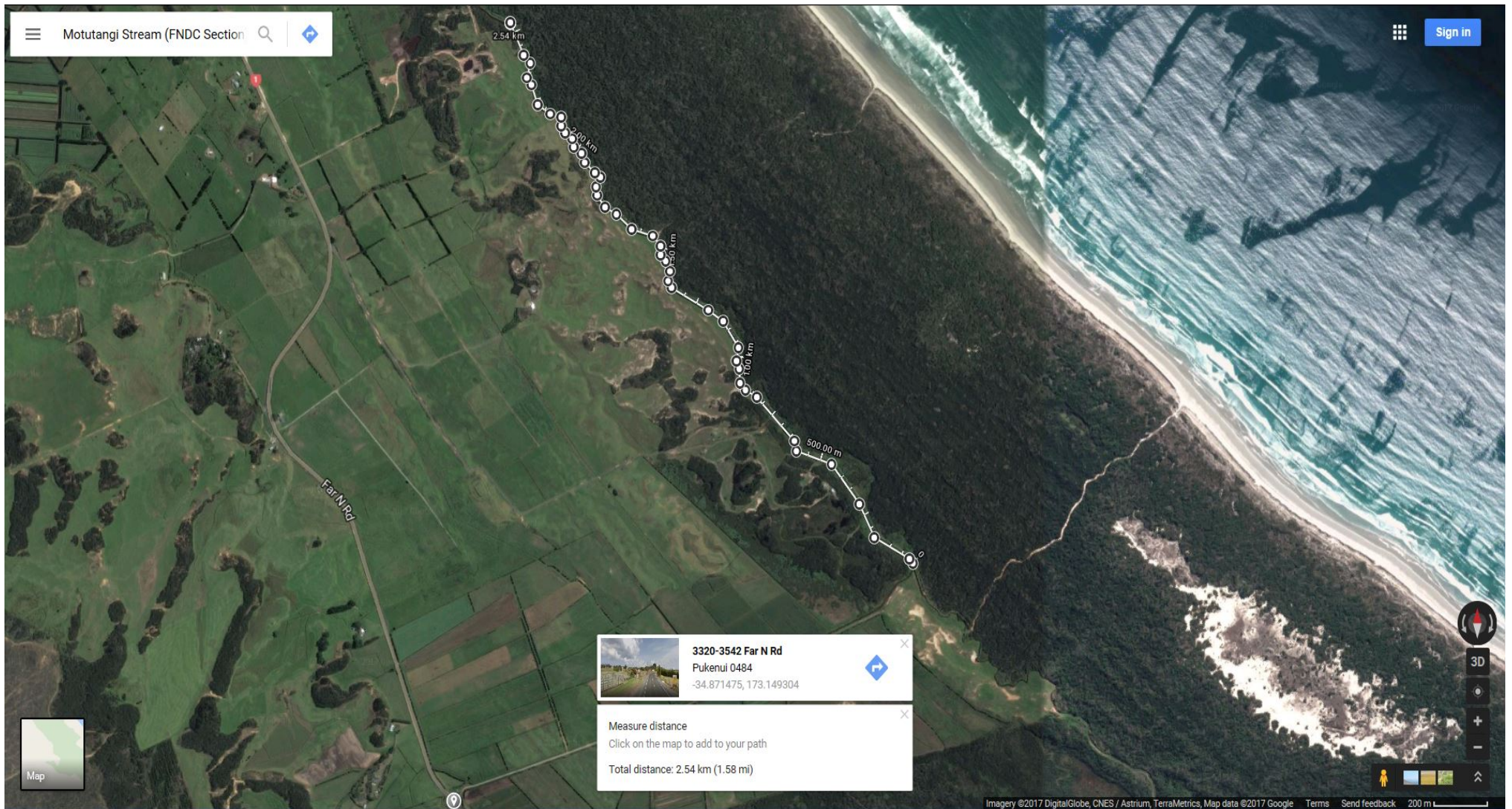


Figure 8 – Location and Length of the Motutangi Stream



Figure 9 – Location and Length of the Main Outfall Drain

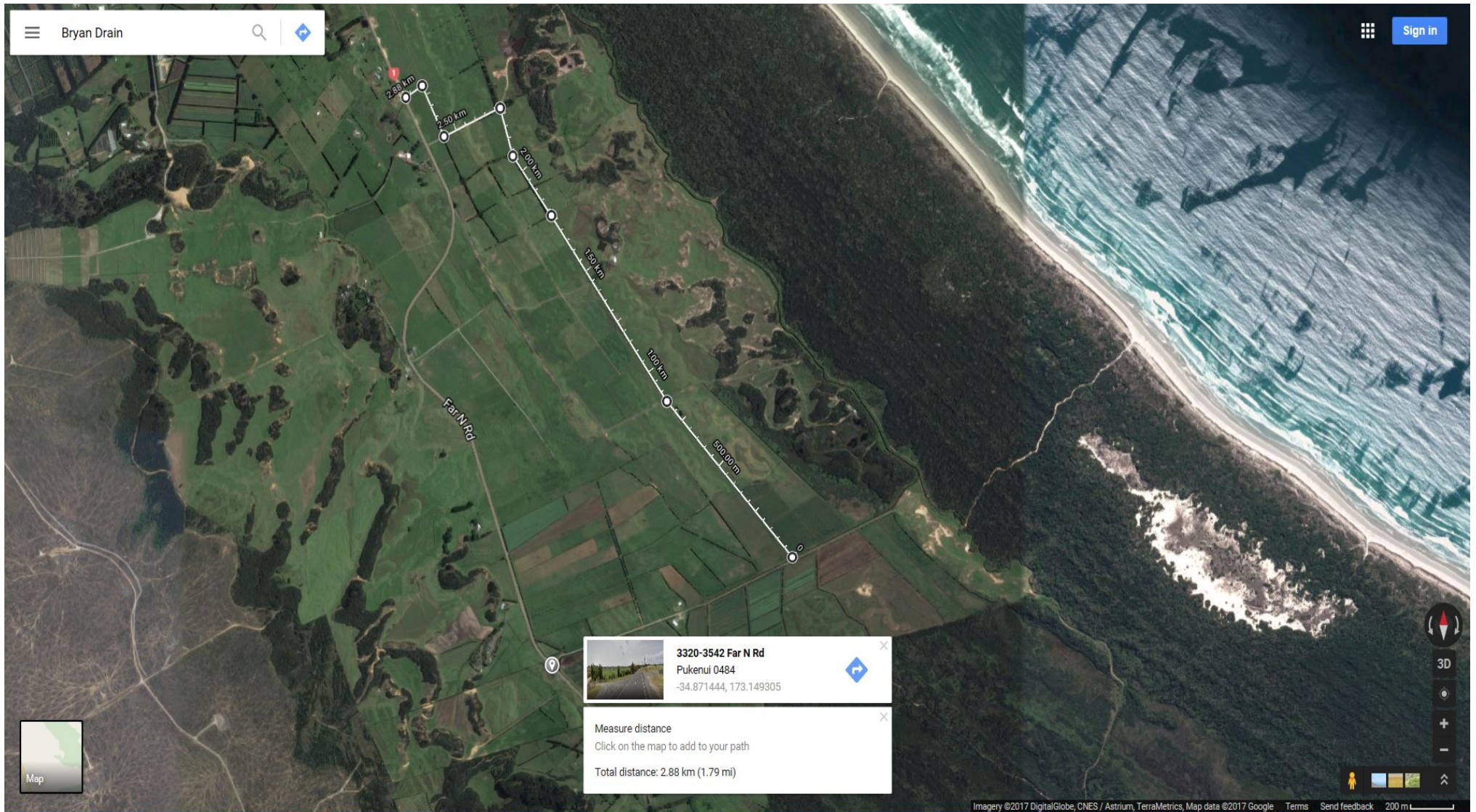


Figure 10 – Location and Length of the Bryan Drain



Figure 11 – Location and Length of the Seymour Drain

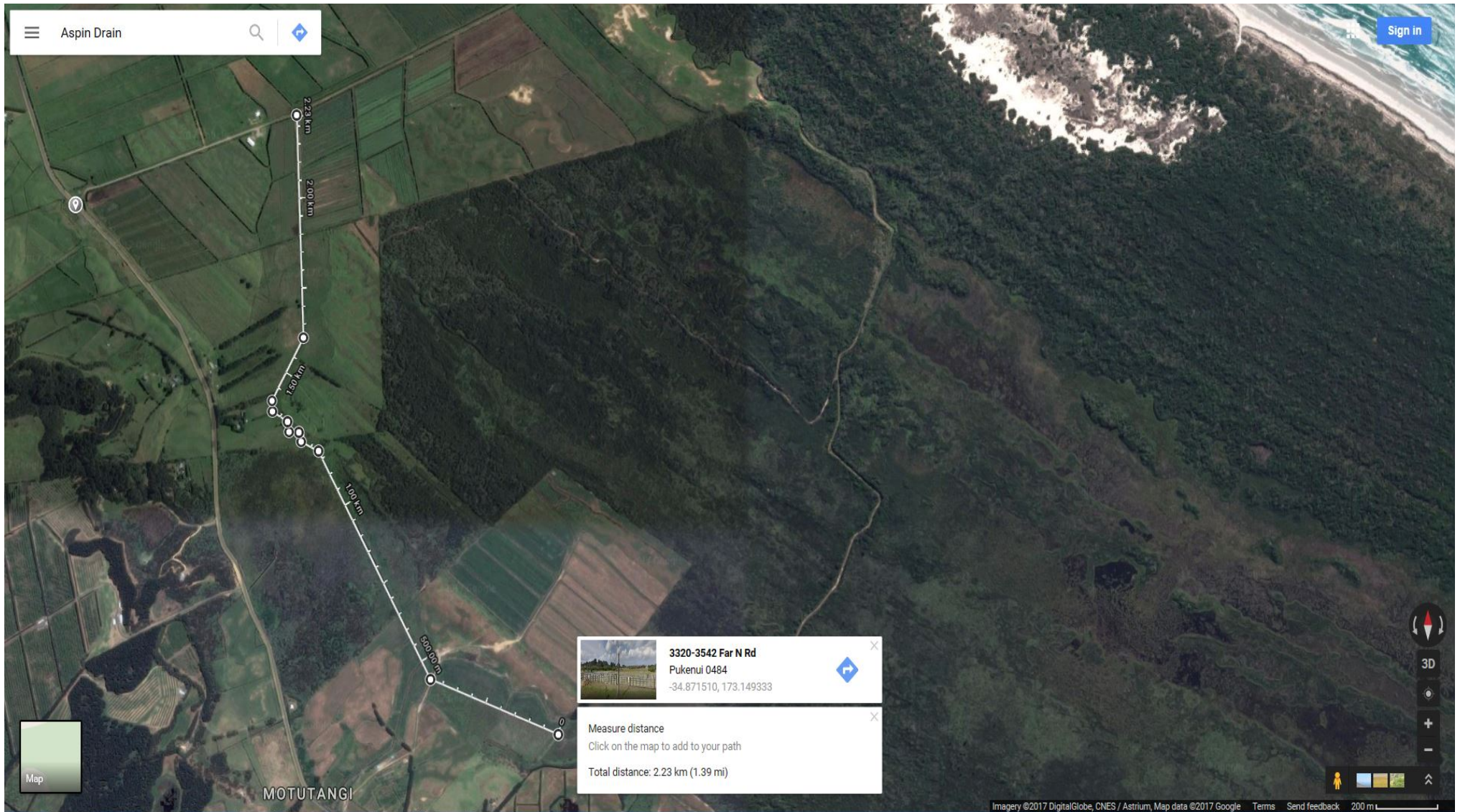


Figure 12 – Location and Length of the Aspin Drain



Figure 13 – Location and Length of the Bacicas Drain



Figure 14 – Location and Length of the Beazley Drain



Figure 15 – Location and Length of the Cut to Lands End Drain

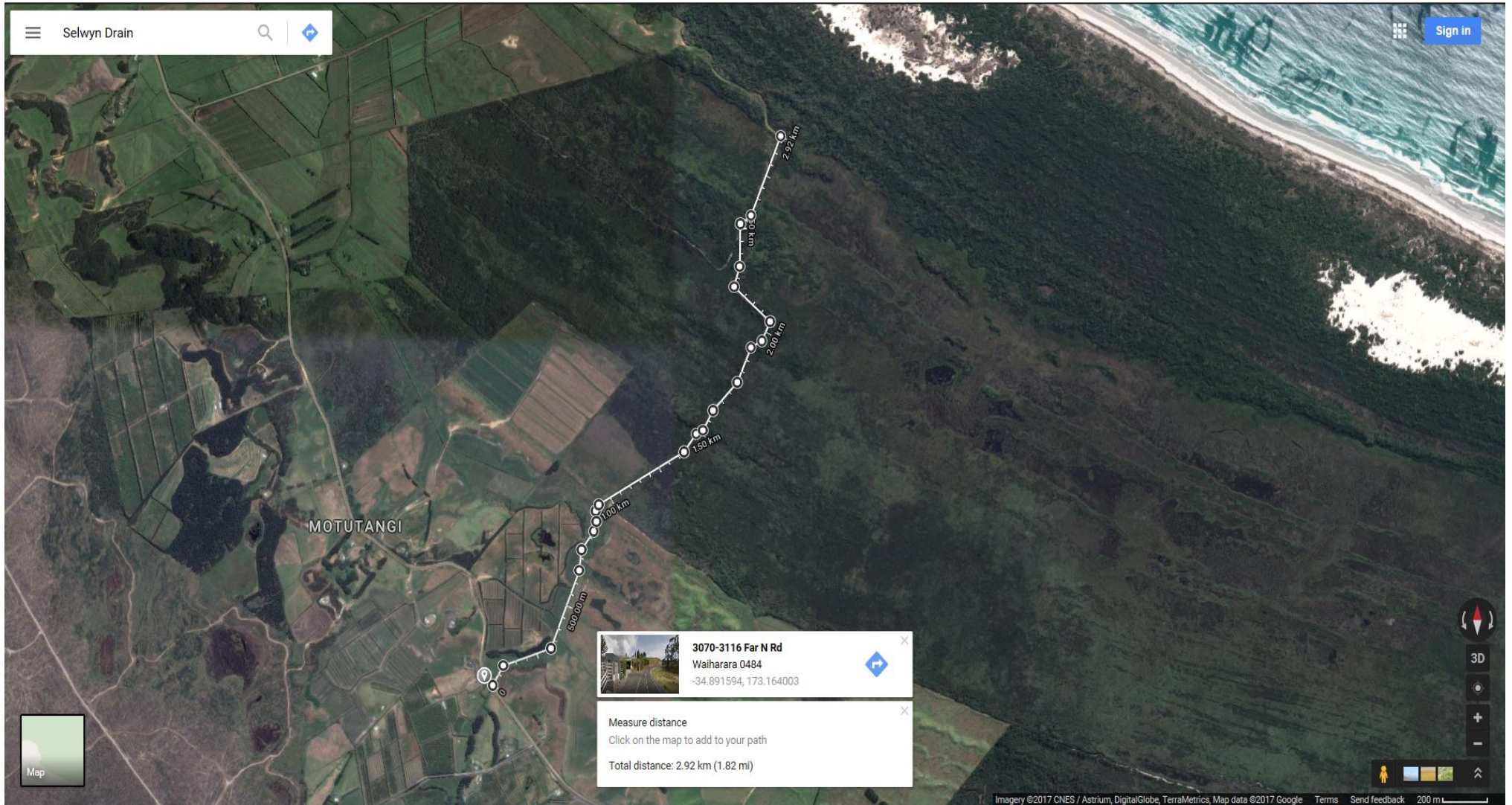


Figure 16 – Location and Length of the Selwyn Drain

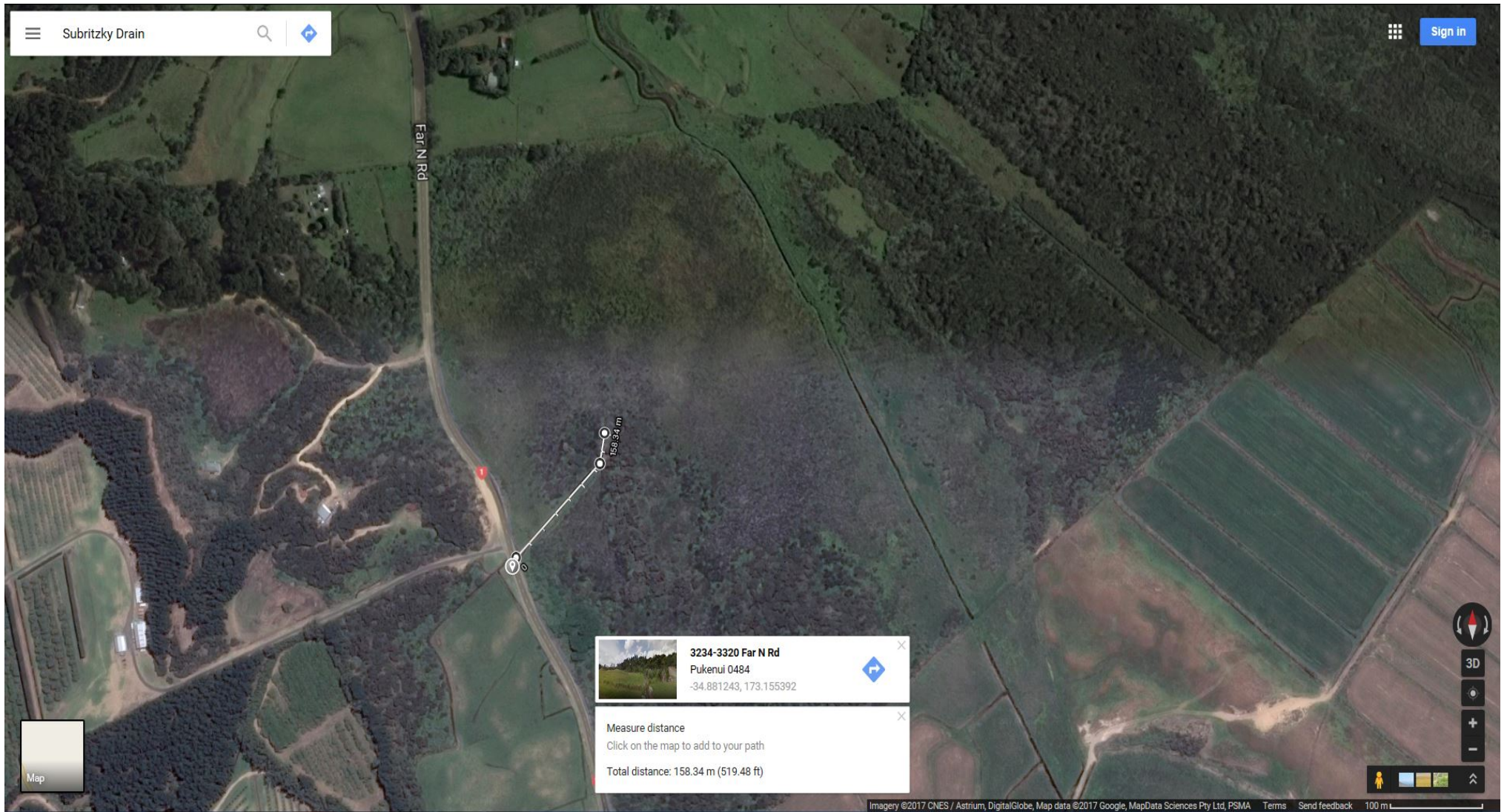


Figure 17 – Location and Length of the Subritzky Drain

Appendix B – Motutangi Drain Database

Table 3 – Motutangi Drain Database



ID	Sub Area (Motutangi)	Drain Name / Location	Length (m)	Drain Dimensions
60065	Motutangi (Northern)		71.87	
60066	Motutangi (Northern)		280.61	1.5-3.0m W/1.0-1.5m D
60067	Motutangi (Northern)		2875.12	
60068	Motutangi (Northern)	Bryan Drain	290.11	
60069	Motutangi (Northern)	Bryan Drain	171.12	
60070	Motutangi (Northern)	Bryan Drain	344.71	
60071	Motutangi (Northern)	Bryan Drain	1016.82	
60072	Motutangi (Northern)	Beazley's Drain	279.53	
60073	Motutangi (Northern)	Beazley's Drain	618.08	
60074	Motutangi (Northern)	Beazley's Drain	1219.83	
60075	Motutangi (Northern)	Main Outfall	345.9	
60076	Motutangi (Northern)	Bryan Drain	983.04	
60077	Motutangi (Northern)	Bryan Drain	95.29	
60078	Motutangi (Northern)	Beazley's drain	387.65	
60079	Motutangi (Northern)	Beazley's drain	38.51	
60080	Motutangi (Northern)	Beazley's drain	348.98	
60081	Motutangi (Northern)	Aspin Drain	145.27	
60082	Motutangi (Northern)	Aspin Drain	91.3	
60083	Motutangi (Northern)	Aspin Drain	328.54	
60084	Motutangi (Northern)	Aspin Drain	126.65	
60085	Motutangi (Northern)	Aspin Drain	98.11	
60086	Motutangi (Northern)		822.52	
60087	Motutangi (Northern)	Cuts to Lands end Drain	1681.76	
60088	Motutangi (Northern)	Aspin Drain	973.72	
60089	Motutangi (Northern)	Selwyn Drain	600.12	
60090	Motutangi (Northern)	Aspin Drain	169.59	
60091	Motutangi (Northern)	Aspin Drain	435.85	
60092	Motutangi (Northern)	Selwyn Drain	376.56	
60093	Motutangi (Northern)	Selwyn Drain	193.9	
60094	Motutangi (Northern)	Selwyn Drain	434.52	
60095	Motutangi (Northern)	Seymour Drain	772.49	
60096	Motutangi (Northern)	Bacica's Drain	1271.24	
60097	Motutangi (Northern)	Bacica's Drain	305.51	
60098	Motutangi (Northern)	Bacica's Drain	554.2	
60099	Motutangi (Northern)	Selwyn Drain	357.46	

Table 3 – Motutangi Drain Database

MEETING: MOTUTANGI DRAINAGE AREA COMMITTEE
27 MARCH 2017

Name of item: MOTUTANGI DRAINAGE AREA WORKS PROGRAMME
UPDATE FOR THE YEAR ENDING 2017

Author: Steven Smith - Stormwater Engineer

Date of report: 9 March 2017

Document number: A1839783

Executive Summary

The purpose of the report is to provide the Motutangi Drainage Area Committee with an update of the indicative programme of works and costs within the Motutangi Drainage Area during the financial year ending 30 June 2017.

A number of these works have been carried forward as uncompleted works from 2015/16 and where possible be completed this financial year.

There are several works related to the discussions with DOC which may not be carried out within this time frame.

Recommendation

THAT the Motutangi Drainage Area Committee makes the following recommendation to the Te Hiku Community Board;

THAT the following revised works be approved for the Motutangi Drainage Area for completion before 30 June 2017;

<i>i) Mulching of the access tracks along the Motutangi Stream and through the Kaimaumu Scientific Reserve</i>	<i>\$1,200</i>
<i>ii) Spraying of drains during Autumn</i>	<i>\$6,000</i>
<i>iii) Mulching of the access track adjacent to the Motutangi Stream and through the Kaimaumu Scientific Reserve</i>	<i>\$2,000</i>
<i>iv) Spraying of the access track adjacent to the Motutangi Stream and through the Kaimaumu Scientific Reserve due to the vegetation growth</i>	<i>\$750</i>
<i>v) Install a culvert, access track, gate and strainers at the Harvey/Harrington boundary on the Aspin Drain</i>	<i>\$1,500</i>
<i>vi) Install a culvert, access track, gate and strainers at the Harvey/Bryan boundary on the Beazley Drain</i>	<i>\$1,500</i>
<i>vii) Install a gate and strainers at the Bryan/Blucher boundary on the Bryan Drain</i>	<i>\$500</i>
<i>viii) A culverted access track is required at Bede's property on the Selwyn Drain</i>	<i>\$2,500</i>
<i>ix) Department of Conservation Concession Agreement Fee</i>	<i>\$1,540</i>
<i>x) Contingency fee</i>	<i>\$11,500</i>

<i>xj)</i>	<i>Machine cleaning</i>	\$4,000
	<i>Total</i>	\$32,990

Completed works

<i>i)</i>	<i>Spraying of drains during Late Spring</i>	\$5,780.60
<i>ii)</i>	<i>Machine cleaning</i>	\$8,170
	<i>Total</i>	\$13,950.60

1) Background

The Motutangi Drainage Area Committee was formally established at the 26 February 2015 meeting of the group previously known as the Northern Advisory Drainage Committee.

Prior to the formal establishment of the Motutangi Drainage Area Committee and the Waiharara and Kaikino Drainage Areas Committee there were meetings of a group known as the Northern Advisory Drainage Committee.

2) Discussion and options

Motutangi Stream Stockpile Relocation

During 2015/16 a number of contractors were been shown through the Motutangi Stream stockpile relocation area and any questions that they raised were addressed at the time.

In each case they were advised that there was no survey of quantities available and that they had to make their best estimate of what they considered it would take to complete the works, as we wanted a fixed price.

They were also advised that we are awaiting the Department of Conservation Concession Agreement and at this juncture had no idea whether there would be any additional works imposed as a result of the Concession Agreement.

In each case they were advised that the running track could be elevated and levelled in order to reduce the quantum of material to be moved.

They were also advised that any dumpsites would be identified by the Department of Conservation before works commenced.

Subsequently we had received three quotes and the quote received from Far North Roding has been used in updating the cost projection for the 2016/17 financial year.

Current notes;

Steven (FNDC) is concerned that the height of the finished track may lead to problems with reach and ease of future cleaning. More research and discussions with DOC are required.

<i>xii)</i>	<i>Levelling of the spoil banks and widening of the access track alongside the Motutangi Stream</i>	\$20,840
-------------	--	-----------------

This item has been removed from the 1617 projected works until a start time and scope is decided (likely 1718).

The contingency fee has been increased to \$11,500. This would provide the flexibility to proceed with part of this programme if desired.

Management Plan / Department of Conservation Concession Agreement

A draft Management Plan has been developed in consultation with Northland Regional Council and the Department of Conservation which addresses the following:

- Objectives of the drainage scheme.
- Definition of the Drainage District and catchment area.
- Location and dimensions of the drains that constitute the Drainage District.
- Description of works required to maintain the drainage scheme including timing and frequency.
- An outline of the bylaw associated with stock access, access over the drains, connection of private drains, proximity of vegetation and fences and machinery access.
- The rating classification for each property.
- Provision for protection of significant indigenous wetlands.
- Review dates for the management plan.

The Department of Conservation have also assisted in providing a draft of the Assessment of Environmental Effects.

The draft Management Plan was lodged with the Department of Conservation for a Concession Agreement on 22 January 2016 and they had a 40 working day period to process the agreement which should have been issued around 22 March 2016.

The Concession Agreement is for the maintenance of the Motutangi Stream and Cut to Lands End which will include vegetation spraying, vegetation removal from the drains and relocation of the stockpiled material.

The fees for the Department of Conservation Concession Agreement are due on receipt of the Concession Agreement and are based on the concession being for a period of 10 years as advice we have received is that a concession in excess of 10 years is required to be notified.

This has become a protracted process and we have been advised that a draft agreement from DOC is about to be supplied.

General Spraying Issues

The spraying contractor has advised that they have had the following problems associated with the last round of spraying:

- Due to the weather last summer the vegetation growth has been vigorous and this made it difficult to identify any hazards and as a consequence impeded the progress of the spraying operation.
- Due to the late commencement to the spraying operations the spraying contractor experienced a number of weather related problems and the drains had significant vegetation growth in them.

The spraying contractor has advised that they have noted the following issues:

Accessibility Issues

The spraying contractor has been requested to identify the location of any of the following issues which are covered by the FNDC Land Drainage Bylaw 2009:

- Obstructions which interfere with the access for plant or machinery to and along the drainage channel or parts thereof and within 10 m of the drain, Clause 3.1.
- Grazing stock which is not excluded from the drainage channel, Clause 5.7.
- Damage caused to the drainage channel due to stock accessing the drainage channel for water, Clause 11.1.
- Obstructions to flow within the drainage channel due to excessive vegetation material.

A notice to all property owners reminding them of the requirements that they must comply with the Drainage Bylaw and in particular the above issues has been sent, incorporated into a letter to property owners listed in the areas of benefit of the drainage schemes.

A contingency allowance of \$4,000 has been included in the 2016/17 year for access work and culverts etc.

Machine Cleaning

There were some areas identified which required machine cleaning work.

When the work was due to commence, it was found that a much larger area required machine cleaning.

The machine cleaning allowance of \$3,000 was exceeded by \$5,170 (a total of \$8,170) due to the accelerated weed growth of last year.

A review of these areas which may require machine cleaning has been carried out and a second machine cleaning operation in the area of Croudens property will be carried out before winter due to the current significant vegetation mat growth, which will require removal.

Repeated Note:

Land owners adjacent to all drains need to be aware of the influence of DOC and the discharge of silt downstream. To continue to operate these drainage schemes, the movement of silt needs to be minimised.

The most practical solution is to batter the banks back at the time of machine drain cleaning. This will progressively stop virtually all bank erosion and most of the silt movement. This will also minimise cost.

This will require fences to be moved back from the edge of drains to allow the battering of the drain banks.

Different soils require different batter angles but as a guideline the angles will be between 30 to 40 degrees.

Once battered the banks will no longer be sprayed at all, only machine trimming being carried out.

The spraying will be confined to weed growth in the centre, un-battered section of the drains.

Any mats will be removed by machine without cutting into the bank batters, using a weed rake wherever possible.

By using this method and drain shape, DOC and NRC involvement will be minimised and the long term future of the drains maintained.

A good reference is the NRC publication "2014-Managing-your-drains-v2".

3) Financial implications and budgetary provision

A summary of the 16/17 financial year is as follows:

	Budget
2015-16 Residual funds (reserve funds available)	\$14,610
2016-17 Opening Balance (rated income)	\$32,832
2016-17 Expenditure to date	\$13,951
2017 Additional Proposed Expenditure	\$32,990
2016-17 Closing Reserve Balance	\$501

4) Reason for recommendation

The reason for the recommendation is to confirm the works and their associated costs to be completed by 30 June 2017.

Manager: Stephen Little - Manager 3 Waters Operation

Compliance schedule:

Full consideration has been given to the provisions of the Local Government Act 2002 S77 in relation to decision making, in particular:

1. A Local authority must, in the course of the decision-making process,
 - a) Seek to identify all reasonably practicable options for the achievement of the objective of a decision; and
 - b) Assess the options in terms of their advantages and disadvantages; and
 - c) If any of the options identified under paragraph (a) involves a significant decision in relation to land or a body of water, take into account the relationship of Māori and their culture and traditions with their ancestral land, water sites, waahi tapu, valued flora and fauna and other taonga.

1. This section is subject to Section 79 - Compliance with procedures in relation to decisions.

Relationship with existing policies and Community outcomes.	Policy #4302 - Northland River Management Policy. Policy #2104-14 Procuring Goods and Services.
Possible implications for the relationship of Māori and their culture and traditions with their ancestral land, water, site, waahi tapu, valued flora and fauna, and other taonga.	Ngai Takoto Iwi is included in the development of the management plan for the districts drainage areas.
Views or preferences of persons likely to be affected by, or to have an interest in the matter, including persons with disabilities, children and older persons.	The purpose of the Committee is to liaise with persons likely to be affected.
Does the issue, proposal, decision or other matter have a high degree of significance or engagement as determined under the Council's Policy #2124?	No.
If the matter has a Community rather than a District wide relevance has the Community Board's views been sought?	This report seeks a recommendation from the Committee to the Te Hiku Community Board.
Financial Implications and Budgetary Provision. Chief Financial Officer review.	Financial implications are to be considered by the committee and budgetary provision is made by way of a targeted rate. The Chief Financial Officer has reviewed this report.

MEETING: MOTUTANGI DRAINAGE AREA COMMITTEE
27 MARCH 2017

Name of item: MOTUTANGI DRAINAGE AREA WORKS PROGRAMME
FOR THE YEAR ENDING 2018

Author: Steven Smith - Stormwater Engineer

Date of report: 27 March 2017

Document number: A1839782

Executive Summary

The purpose of the report is to provide the Motutangi Drainage Area Committee with an outline of the proposed works and costs within the Motutangi Drainage Area during the financial year ending 30 June 2018.

Recommendation

THAT the Motutangi Drainage Area Committee make the following recommendation to the Te Hiku Community Board:

THAT the following works in the Motutangi Drainage Area be approved to be completed before 30 June 2018, with the spraying program to start during November 2017:

<i>i) Spraying of drains during Spring and Autumn</i>	<i>\$10,037</i>
<i>ii) NRC Fee</i>	<i>\$500</i>
<i>iii) Contingency fee</i>	<i>\$3,000</i>
<i>iv) Machine cleaning</i>	<i>\$12,000</i>
<i>v) Completing the levelling of the spoil banks and widening of the access track alongside the Motutangi Stream</i>	<i>\$10,000</i>
<i>Total</i>	<i>\$35,537</i>

1) Background

The Motutangi Drainage Area Committee was formally established at the 26 February 2015 meeting of the group previously known as the Northern Advisory Drainage Committee.

Prior to the formal establishment of the Motutangi Drainage Area Committee and the Waiharara and Kaikino Drainage Areas Committee there were meetings of a group known as the Northern Advisory Drainage Committee.

2) Discussion and options

The proposed works for the 2017/18 financial year are as detailed above:

The works have not yet been priced or instructed:

General Spraying Issues

The spraying contractor has advised that they have noted the following issues:

Accessibility Issues

The spraying contractor has been requested to identify the location of any of the following issues which are covered by the FNDC Land Drainage Bylaw 2009:

- Obstructions which interfere with the access for plant or machinery to and along the drainage channel or parts thereof and within 10 m of the drain, Clause 3.1.
- Grazing stock which is not excluded from the drainage channel, Clause 5.7.
- Damage caused to the drainage channel due to stock accessing the drainage channel for water, Clause 11.1.
- Obstructions to flow within the drainage channel due to excessive vegetation material.

A notice has been sent to all property owners reminding them of the requirements that they must comply with the Drainage Bylaw and in particular the above issues.

A contingency allowance of \$3,000 has been included in the 2017/18 year for access work and culverts etc.

Machine Cleaning

A complete review of these and any other areas which may require machine cleaning shall be investigated in conjunction with the spraying contractor to identify the location of any significant vegetation mats which will require removal.

A machine cleaning allowance of \$12,000 has been included in the 2017/18 year.

Repeated Note:

Land owners adjacent to all drains need to be aware of the influence of DOC and the discharge of silt downstream. To continue to operate these drainage schemes, the movement of silt needs to be minimised.

The most practical solution is to batter the banks back at the time of machine drain cleaning. This will progressively stop virtually all bank erosion and most of the silt movement. This will also minimise cost.

This will require fences to be moved back from the edge of drains to allow the battering of the drain banks.

Different soils require different batter angles but as a guideline the angles will be between 30 to 40 degrees.

Once battered the banks will no longer be sprayed at all, only machine trimming being carried out.

The spraying will be confined to weed growth in the centre, un-battered section of the drains.

Any mats will be removed by machine without cutting into the bank batters, using a weed rake wherever possible.

By using this method and drain shape, DOC and NRC involvement will be minimised and the long term future of the drains maintained.

A good reference is the NRC publication "2014-Managing-your-drains-v2".

3) Financial implications and budgetary provision

A summary of the 17/18 financial year is as follows:

	Budget
2016-17 Residual funds (reserve funds available)	\$501
2017-18 Opening Balance (rated income)	\$36,000
2017-18 Proposed Expenditure	\$35,537
2017-18 Closing Reserve Balance	\$964

4) Reason for recommendation

The reason for the recommendation is to confirm the works and their associated costs to be completed by 30 June 2018.

Manager: Stephen Little - Manager 3 Waters Operation

Compliance schedule:

Full consideration has been given to the provisions of the Local Government Act 2002 S77 in relation to decision making, in particular:

1. A Local authority must, in the course of the decision-making process,
 - a) Seek to identify all reasonably practicable options for the achievement of the objective of a decision; and
 - b) Assess the options in terms of their advantages and disadvantages; and
 - c) If any of the options identified under paragraph (a) involves a significant decision in relation to land or a body of water, take into account the relationship of Māori and their culture and traditions with their ancestral land, water sites, waahi tapu, valued flora and fauna and other taonga.
2. This section is subject to Section 79 - Compliance with procedures in relation to decisions.

Relationship with existing policies and Community outcomes.	Policy #4302 - Northland River Management Policy. Policy #2104-14 Procuring Goods and Services.
Possible implications for the relationship of Māori and their culture and traditions with their ancestral land, water, site, waahi tapu, valued flora and fauna, and other taonga.	Ngai Takoto Iwi is included in the development of the management plan for the districts drainage areas.
Views or preferences of persons likely to be affected by, or to have an interest in the matter, including persons with disabilities, children and older persons.	The purpose of the Committee is to liaise with persons likely to be affected.
Does the issue, proposal, decision or other matter have a high degree of significance or engagement as determined under the Council's Policy #2124?	No.
If the matter has a Community rather than a District wide relevance has the Community Board's views been sought?	This report seeks a recommendation from the Committee to the Te Hiku Community Board.
Financial Implications and Budgetary Provision. Chief Financial Officer review.	Financial implications are to be considered by the committee and budgetary provision is made by way of a targeted rate. The Chief Financial Officer has reviewed this report.