

Te Mania

Sub-Catchment Action Plan 2012



The Te Mania Sub-Catchment Action Plan is one of a series produced for the sub-catchments surrounding the Tauranga Harbour. The aim of this action plan is to provide an analysis of the current land management issues, a summary of the available physical resources in the Te Mania sub-catchment, and action for land and resource use in the sub-catchment.

Published September 2012

Introduction

The Te Mania catchment is located approximately 3 kilometres (km) south of Katikati. It is approximately 1,300 hectares in area and flows in a north east direction to Tauranga Harbour. The Te Mania catchment is part of the Tauranga ecological district.

The catchment is approximately 2 km wide and 8 km long. It includes 28 km of streams and 1.7 km of harbour margin. The primary stream in the catchment is the Te Mania at 8 km in length, with 11 other tributaries making up the remaining 20 km of stream in the catchment. The Te Mania stream and its tributaries are classified as aquatic ecosystem streams and are recognised as migratory pathways for indigenous fish species.

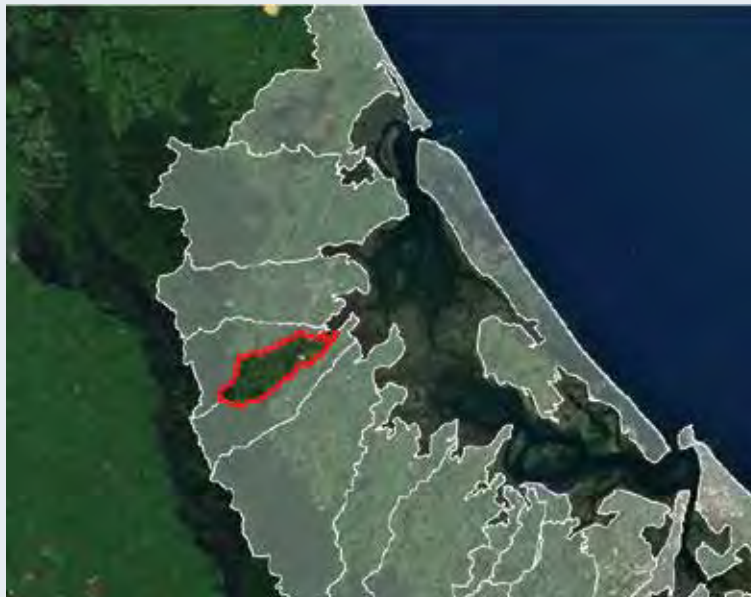
Land use in the catchment is predominantly dry stock with approximately 10% horticulture. At the last census the population for this catchment was 441, with 424 parcels of land owned by 208 land owners.

Catchment soils are derived from air-fall ash and belong to the Katikati soil series with Katikati Sandy Loam and Katikati hill soils being the main soil types in the area. Soils on the stream flats are recent and consist of fluvial sands, silts, gravels and boulders.

Being volcanic in nature the soils are resilient and versatile, however due to poor cohesive properties this also makes them vulnerable to erosion under conditions such as inadequate vegetative cover or root system binding.



Source: BOPRC, ESRI, i-cubed, USGS, NASA, NOA



Source: BOPRC, ESRI, i-cubed, USGS, NASA, NOA

Land management

What is the problem?

Livestock access to a stream degrades water quality by increasing nutrients, faecal matter and sediment entering the waterway. Stock access can increase stream bank erosion through damage to the soil structure by treading, and clearance and degradation of vegetation on the stream bank by treading and consumption.

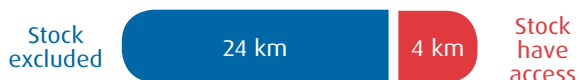
Water quality may also be degraded by the addition of excess nutrients to the stream in the form of fertilisers, farm runoff and urine patches.

These and other pollutants are generally unintentional byproducts of activities such as farming and construction.

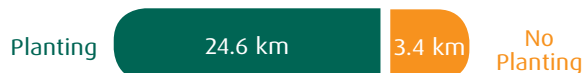
What will we do about it?

- Continue to promote riparian margin fencing along streams for stock exclusion to protect water quality
- Establish riparian margin planting, which can reduce pollutants entering streams through surface runoff by acting as a filter
- Encourage stock stream crossings, such as bridges, to protect the water quality of streams
- Support retirement of steep erodible land
- Protect existing areas of indigenous biodiversity
- Protect existing wetland areas
- Work with other agencies and other sections of Regional Council to ensure consistent land and water quality management.

Current riparian margin fencing protection:



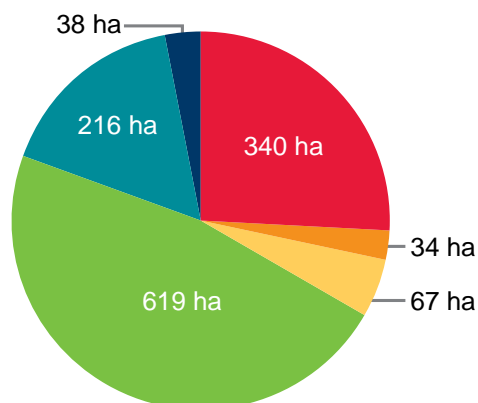
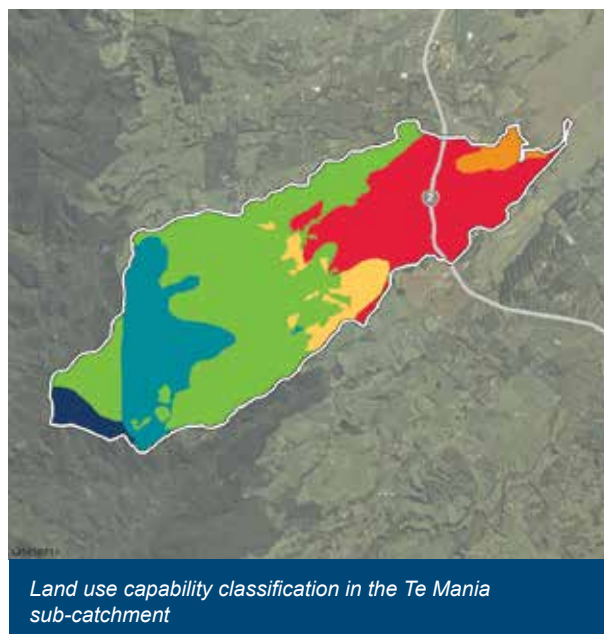
Current riparian margin planting:



Land use capability classification in the Te Mania sub-catchment

Sustainable land use and management is essential to ensure the Bay of Plenty region maintains clean waterways, productive soils, and indigenous biodiversity. How the land is used and managed can have a direct effect on its potential for long-term sustainability.

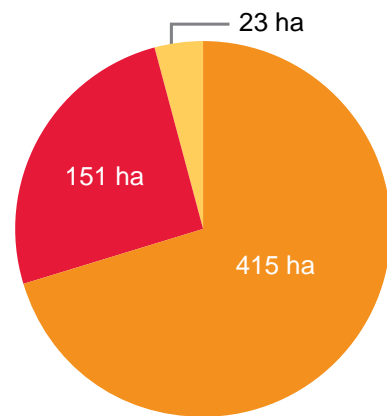
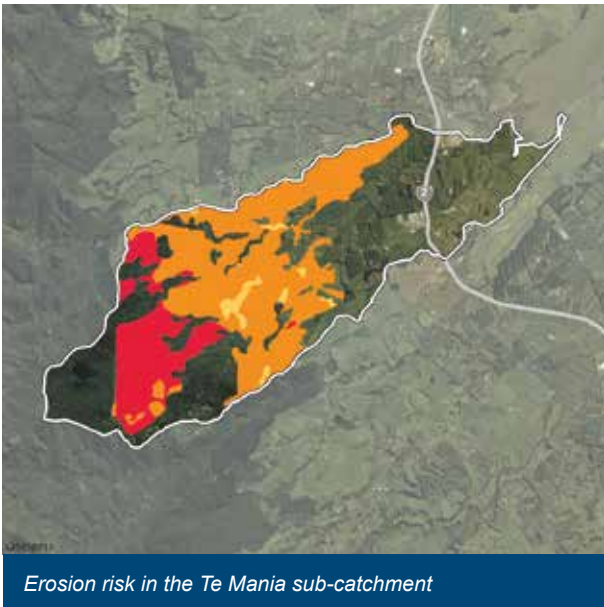
The majority of land in the Te Mania sub-catchment is class 3, 6 and 7; rolling, steep and very steep landscapes. The class 7 land is located in the upper catchment; most of the class 6 land is in the middle reaches of the catchment; and the class 3 land is restricted to the lower catchment.



LUC Class	LUC Units	Percent
3	3e 1, 3e 1+6e 2	26
4	4w 1	3
5	5	5
6	6e 1, 6e 2	47
7	7e 8	16
8	8e 4	3

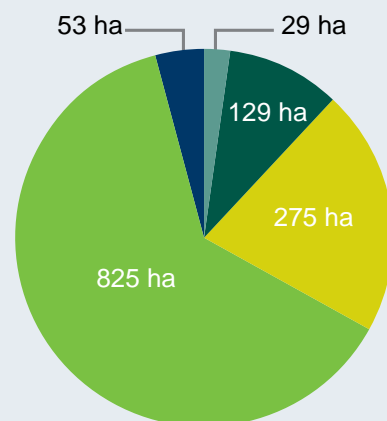
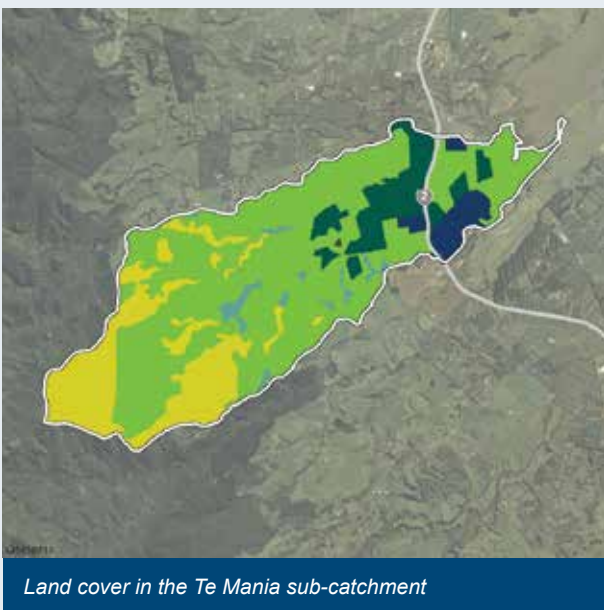
Erosion risk in the Te Mania sub-catchment

A high proportion of Land Use Capability class 6 and 7 land in the Te Mania sub-catchment is medium to high risk erosion prone land due to pastoral land use.



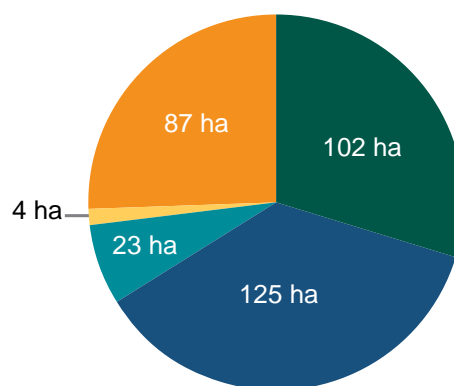
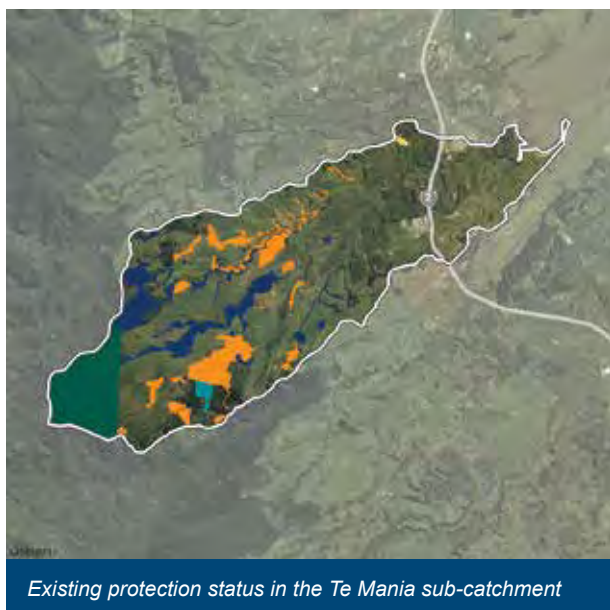
Land Use	Risk	Percent
Pasture	Medium	32
Pasture	High	11
Exotic forest	Medium	2

Land cover in the Te Mania sub-catchment



Vegetation	Percent
Exotic	2
Horticulture	10
Indigenous	21
Pasture	63
Urban	4

Existing protection status in the Te Mania sub-catchment



Class	Percent
DOC Reserve	8
QEII	2
BOPRC Covenant	10
WBOPDC Covenant	7
District Reserve	1

Case study

Derry and Jennifer Seddon own a 230 hectare dry stock farm on rolling to steep rolling hill country just south of Katikati. Since 1995, with the assistance of Bay of Plenty Regional Council, they have progressively retired riparian margins from grazing. Derry and his farm manager Rick Burke have managed the project from the start and are now enjoying the rewards.

More than 60 hectares of very steep pasture and riparian margin have now been retired. "There has been no loss in farm production and stock control and movement is easier and takes less time", says Rick. He explains that "by concentrating on the good land we have gained efficiencies with fertiliser application and cost".

The native plants are doing well, creating riparian corridors through the farm. A post-planting survey of the Te Mania stream showed a significant increase in native fish due to an improved habitat.

Derry has recently registered the property with the Emissions Trading Scheme (ETS) and expects to make a good return on the retired areas that have



been planted with a mix of native plants and exotic timber. Both Derry and Rick are convinced the retirement and protection work they have undertaken has been well worth the effort and they encourage other landowners to "get some good advice and just get on with it".

Land management survey 2011

Field work

In developing the Te Mania Sub-Catchment Action Plan Bay of Plenty Regional Council surveyed 36 properties located within the catchment area between 29 November 2010 and 18 January 2011. The properties surveyed account for 60% of the catchment area. Priority was given to large properties that had waterways flowing through them or along their boundary. Areas with a formal protection mechanism were not surveyed as these already have action plans in place. Field work included an assessment of land use, steam margins, erosion features and biodiversity features. The table summarises the field work undertaken by Bay of Plenty Regional Council:

Land use	<ul style="list-style-type: none"> Type and rationale Land Use Capability classification based on physical resources present
Stream margins	<ul style="list-style-type: none"> Protection measures (if any) that were in place Their general condition and upkeep Estimating their extent (both protected and unprotected) Taking a GPS track of any stream channels not evident in the GIS database maps
Erosion features	<ul style="list-style-type: none"> Estimation of size and trend direction Photographs and GPS points were taken (either at the site of the feature or where a photo was taken of it) for future reference
Biodiversity features	<ul style="list-style-type: none"> Estimation of extent of land area covered and the type of vegetation (e.g. native, introduced species)

Land owner feedback

Bay of Plenty Regional Council held a meeting with land owners on 16 May 2011. The purpose of the meeting was to gather the concerns, challenges and priorities of land owners in the Te Mania sub-catchment area. The following list provides a summary of the land management issues raised by land owners:

- Lack of information about where silt/nutrients/E. coli are originating from
- Insufficient water quality monitoring of nutrient runoff in the streams
- Management plans needed to assist with the restoration of wetlands
- Erosion and sedimentation (e.g. from road batters and unplanted erosion-prone hillsides)
- Lack of accurate meaningful picture of sedimentation
- Lack of reliable information about the cost-benefit of sustainable land management practices
- Insufficient monitoring of biodiversity
- River alignment required in prioritised areas of erosion – prone river flats

- Climate change and its impacts – sea level rise; coastal erosion; increased rainfall; weed species changing; droughts
- Subdivision and carrying capacity
- Insufficient pest animal management and monitoring on public conservation land in upper catchment
- Insufficient monitoring of sawmill discharge affecting air, land and water quality
- Subdivision and carrying capacity.

Iwi/hapū feedback

Ngāi Tamawhariua as hapū within the Te Mania rohe provided the following feedback on their concerns, challenges and priorities:

- Lack of access to traditional tuna gathering areas (Interest was expressed to gain better access, including to the waterways in general)

(At the printing of this Plan, further communication was to take place and the exploration of a wider hapū cluster hui was still to be arranged)

Actions

The three main land management issues common to the surveyed properties in the Te Mania sub-catchment area are set out in the table below. Proposed actions to maintain and improve riparian protection, erosion, unsuitable land use and biodiversity loss within the catchment area are listed along with who is involved to implement the action.

Land management issues and solutions

Actions	Milestones	Who is involved?
<p>Improving riparian protection</p> <ul style="list-style-type: none"> ▪ Work with land owners to apply sustainable land use methods and practices to maintain improve water quality. ▪ Completely remove stock access to streams, fence the remaining 4km and instigate planting of the remaining 3.4km of riparian margins to eliminate the effects of livestock, polluted water runoff and erosion. ▪ Instigate necessary remedial works to stream margins, such as bank re-profiling, riparian planting and engineering works using relevant legislation relating to riparian management. ▪ Tailor site-specific solutions. 	<p>400 metres of new riparian fencing per year</p>	<ul style="list-style-type: none"> ▪ Bay of Plenty Regional Council ▪ Landowners ▪ Western Bay of Plenty District Council
<p>Improve erosion control and appropriate land use practices</p> <ul style="list-style-type: none"> ▪ Apply property level management plans to Class 6 and 7 pastoral and forestry land that has been identified as eroding or at risk of eroding ▪ Promote the need for land use change on Class 7 pastoral land – advocate land retirement, forestry and suitable stock regimes ▪ Work with land owners to apply soil and water conservation methods and good land management practice to maintain and/or repair landscapes ▪ Increase awareness of the effects of cattle and deer at high stocking rates on the steeper slopes ▪ Ensure that land owners apply appropriate land management practices 	<p>40% of 'at risk' land has management plans by 2017</p>	<ul style="list-style-type: none"> ▪ Bay of Plenty Regional Council ▪ Landowners ▪ Western Bay of Plenty District Council ▪ Department of Conservation
<p>Improve biodiversity protection and enhancement</p> <ul style="list-style-type: none"> ▪ Advocate further covenanted areas within the subcatchment ▪ Continue plantings on private land in native or noninvasive introduced species. ▪ Liaise with Waikato Regional Council and Department of Conservation on coordinating management of the Kaimai Mamaku Range and its catchments as part of the Kaimai catchments project ▪ Work with land owners and community groups to protect identified biodiversity areas in the subcatchment by establishing native plant populations and controlling nuisance populations of pest animals and plants 	<p>By 2017 an additional 10 sites are managed for biodiversity protection and enhancement.</p>	<ul style="list-style-type: none"> ▪ Bay of Plenty Regional Council ▪ Land owners ▪ Department of Conservation ▪ Waikato Regional Council ▪ Community Care Groups ▪ Western Bay of Plenty District Council

Monitoring

Te Mania catchment action plan key performance indicators (KPI's)

	Key performance indicator	Te Mania sub-catchment targets						
		Current	Year 1*	Year 2*	Year 3*	Year 4*	Year 5*	Years 6*-10
Soil and water	Percentage of riparian margins excluded from stock	86%	88%	90%	92%	95%	98%	100%
	Percentage of land classified as 'at risk' for erosion which is subject to a property level management plan	New measure	5%	10%	20%	30%	40%	50%
Biodiversity	Percentage of high value ecological sites on private land that is under active management	New measure	Not applicable (no HVES sites in catchment)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
	Number of areas of indigenous forest or wetland being actively managed by the community to protect their biodiversity values	New measure	1	1	2	2	3	3

Note: The progress to achieve the targets will be reported on annually.

**Year 1 ends at 30 June 2013, Year 2 ends at 30 June 2014 etc.*

For more information call a Land Resources Administration Officer on 0800 884 880.

