



Meeting of the Drought Committee

Date: Tuesday 10 March 2020
Time: 10.00am
Venue: Council Chamber
Hawke's Bay Regional Council
159 Dalton Street
NAPIER

Agenda

ITEM	SUBJECT	PAGE
1.	Welcome/Notices/Apologies	
2.	Conflict of Interest Declarations	
Information or Performance Monitoring		
3.	Welcome from Rex Graham, Chair, Hawke's Bay Regional Council	
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9.	Situation update: East Coast Rural Support Trust (verbal)	
10.	Roles and Responsibilities of the Drought Committee	
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13.	Agreed Actions points	
14.	Next meeting date	

HAWKE'S BAY REGIONAL COUNCIL

DROUGHT COMMITTEE

Tuesday 10 March 2020

Subject: SITUATION UPDATE FROM THE HAWKE'S BAY RURAL ADVISORY GROUP (HBRAG)

Item 5

Discussion

1. Minutes from the 4 March 2020 HB Rural Advisory Committee meeting has been attached for ease of reference.
2. The minutes includes next steps for getting a classification of the drought as a medium-scale event under the Government's Primary Sector Recovery Policy.
3. The following link provides more information and resources on dealing with droughts and how MPI assesses the severity of dry conditions:

<https://www.mpi.govt.nz/protection-and-response/responding/adverse-events/dealing-with-drought-conditions/>

4. Information on what is required if a medium-scale classification is sought as proposed by the HBRAG is attached hereto.
5. A press release dated 6 March 2020 is attached.

Authored by:

**Annelie Roets
GOVERNANCE ADMINISTRATION
ASSISTANT**

Approved by:

**Joanne Lawrence
GROUP MANAGER OFFICE OF THE
CHIEF EXECUTIVE AND CHAIR**

Attachment/s

- [!\[\]\(a724a4a68298d6dff85fe378e838a60a_img.jpg\) 1](#) Minutes from the 4 March 2020 HBRAG meeting
- [!\[\]\(e45f0f4def98e1246d9487bb157beff5_img.jpg\) 2](#) Assessment of Drought - matters to address
- [!\[\]\(88bfc90d98dd4d34739a3a724db7c68c_img.jpg\) 3](#) Press release - 6 March 2020

Hawke's Bay Rural Advisory Group meeting

04/03/2020

Topic: The dry conditions, plus the impacts of Covid19 and the Tb outbreak in Hawkes Bay.**Present** (including by phone):

Wade Nilsson	Ravensdown, co-chair HBAG (Chair)
Alison Prins	Hawke's Bay Civil Defence Emergency Management
Dianne Vesty	Hawke's Bay Fruitgrowers' Association Inc
Tiki Marra	Hawke's Bay Winegrowers Association
Denal Meihana	Hawke's Bay Civil Defence Emergency Management (Wairoa)
Cr. Tania Kerr	Hasting's District Council
Cr. Tim Aitken	Central Hawke's Bay District Council
Ian Macdonald	Hawke's Bay Civil Defence Emergency Management
Cr. Will Foley	Hawke's Bay Regional Council
Lon Anderson	East Coast Rural Support Trust
Jim Galloway	Federated Farmers (Hawke's Bay)
Salli Baldock	Federated Farmers (Hawke's Bay)
Stephen Lys	Beef+Lamb NZ
Liz Lambert	Hawke's Bay Regional Council
Karl Wairama	Hawke's Bay Civil Defence Emergency Management
Mike Adye	Hawke's Bay Civil Defence Emergency Management
Kathleen Kozyniak	Hawke's Bay Regional Council
Fenton Wilson	Wairoa District Farmer
Alanda Rafferty	VetEnt Havelock North
Trevor Mitchell	Fire and Emergency NZ
Gillian Mangin	MPI
Katey Borman	MPI (Minutes)

The intention of this meeting to:

Discuss the status of the dry conditions and the extent to which farmers and growers are coping, bearing in mind other impacts on sectors including due to Covid19 and Tb Movement Controls; and discuss next steps.

Situation update- Weather (Kathleen)

The month of February was very dry with most areas receiving less than 10 percent of their usual rainfall. Northern Hawke's Bay received between 50-100mm of rain but the Ruahine Ranges, Ruatahiwha and Heretaunga Plains only received around 5mm. The four months November 2019 to end of February 2020 was the driest four-month period in 50 years in the Ruahine Ranges and Ruatahiwha Plains. Soil moisture is also very low – like 2012/13.

Temperature throughout February 2020 was 3 degrees (Celsius) hotter than other previously recorded average February temperatures; same as November 2019, which was also a dry period. Evapotranspiration rates were also high.

The highest rainfall today (to 9.00am 04/03/2020) was recorded at 8mm west of Napier with more expected to come. There is a system brewing over the weekend which will travel up the country and may bring showers on Sunday; and there is a possibility of some rain next week. There is a possibility of more tropical activity later.

How much rain do we need? (Variable depending on each area). A couple of days of steady rain will assist. Normal monthly rainfall would be helpful otherwise the situation will deteriorate. Suggested that 20mm is needed to boost grass growth, with further follow up rain. However, Hawke's Bay during March is normally quite dry. The rain from ex-tropical cyclones between March and April often helps.

Rainfall in the Ruahine Ranges has been less than half of average for the past 12 months (since March 2019). This has impacted fish such as eels, koura that have been dying more frequently; and dried up springs and streams used for stock water. High temperatures and the increased wind sucked a lot of moisture out of the air during February. According to the NIWA drought monitor, the ranges are in severe drought.

There are a few issues in Hawke's Bay such as M.Bovis, TB movement control and potential impacts of COVID19; however, drought is the main concern. Getting people through is the main concern, and also stock.

Updates:

Lon Anderson ECRST: The foothills of the Ruahine Ranges is very dry and the main area under pressure; and there are murmurs in regards to animal welfare. The biggest issue is the availability of water and feed for stock (hay, baleage and grain). There is a lot of extra stock being carried that needs to be sold. Farmers on the coast are doing okay, as they go through it every year and have stock water. So far ECRST is getting a few phone calls but no welfare issues.

Animal welfare: (Hayley absent) Gillian: Drought response is being coordinated at a national level in MPI. Northland needs stock food and water; Northland councils have taken responsibility for water and are using Fonterra tankers. There are difficulties de-stocking issues, but have not heard of any animal welfare concerns.

Biosecurity/ Feed: Issues with Tb movement control, lack of killing space available and also nowhere for the animals to go for grazing off due to widespread dry conditions. Tb testing means holding cattle near yards while they are waiting for results, often on better paddocks usually used for lambs, sheep.

Some of the farms on the plains with irrigation might be able to graze capital stock rather than lambs. Farmers are starting to graze winter feed crops and plan to replace these with oats/annual ryegrass. However, winter feed may be an issue if autumn sown pasture are planted too late due to dry. Some farmers have sold capital stock and some stock has been sent to grazing near Palmerston North; others still have cull ewes waiting to be sold.

Not much supplementary feed seems to be available. Some farmers have ordered baleage to get them through winter, others are not thinking ahead and focussed on dealing with water. New Plymouth had a good spring and so may have some supplementary feed available but farmers are advised to get in early. Maize crops are poor so there may be limited silage and grain. According to the feed survey, farmers are not ordering ahead so retailers are not buying in bulk shipments.

Dairy: Beginning to struggle. Autumn calving herds are under pressure with lack of good feed, water; not great start for these calves. Aren't growing the same amount of feed they normally would, and Palm kernel has increased in price. There are issues with destocking, and winter crops failing on grazing blocks. Banks are also getting tough on finance for more feed - need to get people to "talk to banks earlier".

Positive messages to come out of this discussion (especially for those experiencing their first drought or in normally summer-safe areas)

1. Encourage farmers to make decisions early and to look out for additional feed
2. Talk to banks earlier

New feed website:

www.agrihq.co.nz/feed-noticeboard

Lists five operators in Hawke's Bay but the website is nationwide.

B+LNZ Managing Dry Conditions seminar at Maraekakaho: only had eight farmers attend; possibly because this area is more used to these conditions. B+LNZ is planning to roll out more sessions further south.

Viticulture: Irrigation has been cut off and limited since February. Crownthorpe particularly affected. White grapes are doing okay as were in veraison when water limited, but red grapes were still hard berries. The young vines are going through stress but it is unclear what the result of this could be. However, in areas early ripening has seen some chardonnay already harvested. They are benefitting from the long, hot, dry season.

Horticulture: Unsure of the impact, will find out more next week.

Cropping: Some vegetable crops harvested early but yields down. People are beginning to have to prioritise crops in regards to irrigation due to the lack of water.

Forestry: Harvest impacted by Covid19.

Irrigation: There are 46 bans on surface water takes on 22 separate sites. How much rain is needed for bans to be lifted? Rivers respond rapidly to rain in the ranges and the ban at Fernhill lifted last week enabling 24 hours of irrigation. Growers were notified they could take water and it was appreciated.

Fire: Worst fire season in years. Water supplies are dire, as dams aren't deep enough and domestic water sources have none to spare for firefighting. With longer nights, cooler temperatures and some dews the fire season shouldn't get worse. Wairoa now has permit-only fires; total fire bans are likely to remain in place in Hastings and CHB for the foreseeable future.

SummaryPriorities:

- Feed (+ supplementary) planning
- Water - Stock water under the ranges
- People welfare – ECRST giving a hand on TB response, but not a lot of pressure from M.Bovis work. ECRST is focussed on the dry and coping with the increase in calls. Classification of adverse event would free up funding
- Stock - works space for lambs; need to reduce feed demand- tougher the longer without rain.
- Drought-proofing for the future – feed and water supplies

Some CHB companies e.g. Medallion will soon run out of water for processing and then begin laying off staff. Silver Fern Farms apparently doesn't have staff for more than three days per week with overtime.

Classification of adverse event

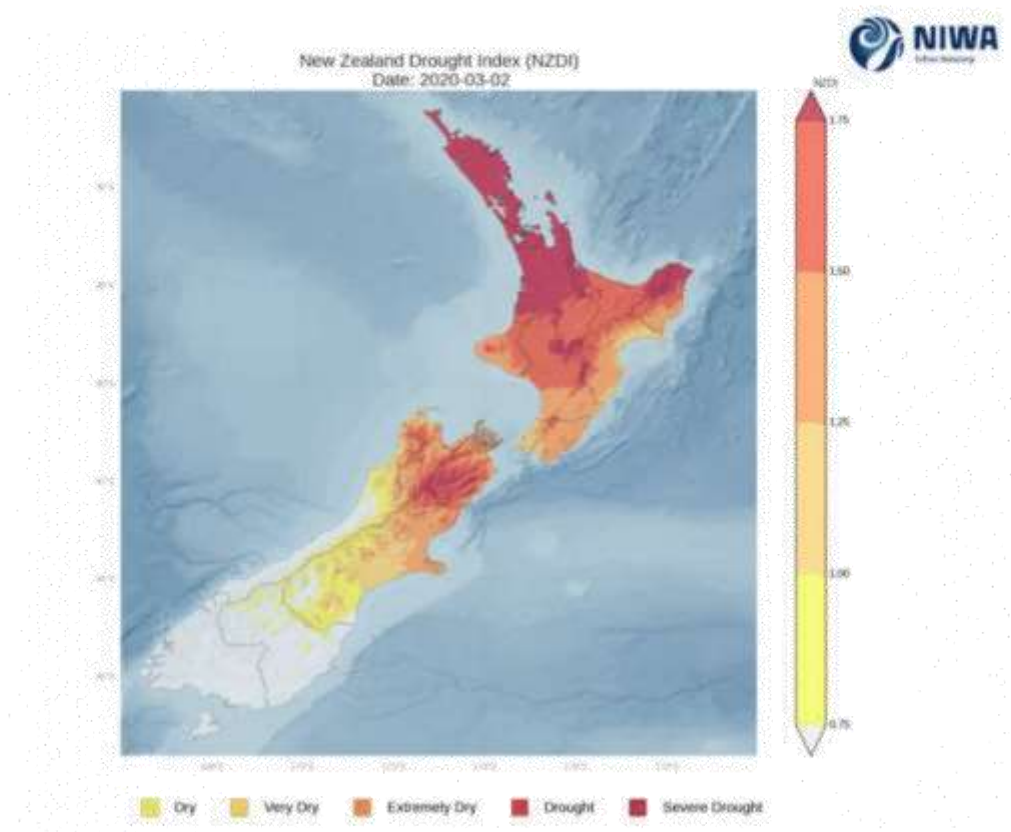
It was agreed that western areas of both CHB and Hastings south of SH5 (that are normally summer-safe) are in drought (with some similarities to the 1997/98 drought). The Government's classification of a medium-scale adverse event revolves around the options to prepare (limited in this case by lack of killing space, grazing options); the scale and frequency of the event (it is part of a wider area into Tararua and beyond; and the drought in the areas of the western ranges and Ruataniwha Plains is the worst in 50 years) and importantly the capacity of the community to cope (which would be assisted by having resource to coordinate efforts and provide more support to farmers).

It is suggested that after the HBRC drought committee meeting next week, a letter could be sent to MPI outlining the reasons why CHB and Hastings Districts should be classified as being in a medium-scale drought.

Next steps for HBRAG

The rural advisory group needs to come together/activate more regularly to coordinate planning:

- messaging around making a plan, having conversations (include ECRST 0800 RURAL HELP); feed (AgriHQ feed noticeboard) and water supplies; talking to banks early e.g. to be allowed to keep proceeds from sales of capital stock for restocking,
- setting up local meetings (e.g. B+LNZ) and sharing information within the community.



Item 5

Attachment 1

Assessment of [region] Drought against Primary Sector Recovery Policy Criteria – [date]				
Scale of Adverse Event		Localised	Medium-scale	Large-scale
Themes	Criteria	Assessment/classification of the event		
Risk management options	Availability of options	Readily available	Moderately available	No practical options available
	<p>Options to mitigate impacts are currently ????? [from above scale]</p> <p>Key challenges</p> <p>Address/provide comments on ability to access water for stock; destock promptly trading stock and cull stock (works capacity/delays, store markets, prices); adequacy of pasture levels and feed availability in region and others nearby – i.e. to buy-in feed or send stock to grazing etc. Likely impact on winter feed situation (fodder crops, use of supplements normally kept for winter etc)</p> <p>Provide other context e.g. Key messaging on managing through the dry conditions being actively distributed by the different sector groups etc</p> <p>Actions that farmers have been taking e.g. reducing milking frequency, culling and drying off dairy cows, and selling trading or capital stock via yards or works; sending dry-stock/capital stock to grazing.</p> <p>Impacts on horticulture.</p>			
Magnitude of event	Likelihood of the event	Frequent	Infrequent	Rare
	<p>Assessment against above scale</p> <p>Extremely dry weather is relatively common/rare for [region] at this time of year (what is the frequency of event/ return period in years etc)</p> <p>Rainfall over season compared with normal. Historical context.</p> <p>What is the extent/level of soil moisture deficit (dry soil conditions) and how low are river levels compared with normal. Impact on stock water and irrigation.</p> <p>Weather outlook</p>			
	Scale of physical impact	Local level	District level/ multi-district level/ Regional	National level
	<p>The New Zealand Drought Index, which combines four critical variables, currently indicates a drought or severe drought for [name] districts or region. Any districts better or worse than others.</p> <p>River and ground water resources [where] are currently lower than usual for this time of year.</p>			

Capacity of community to cope	Degree of economic impact	Local level	District level/ multi-district level/ Regional	national level
	<p>Overall comment e.g. The economic impact differs across sectors and farm management systems. In general, the economic impacts are currently at a regional scale due to the wide distribution of the dry conditions.</p> <p>Provide examples</p> <ul style="list-style-type: none"> - As conditions have become drier over the past [period], milk volumes are currently x % behind for the month to date, y % behind on a 6 day average and z % behind daily. - Proportion of Herds going onto OAD milking or being dried off; purchasing feed costs - Sheep and beef farmers are also impacted, having had to sell stock at lighter weights, reduce stock numbers, and purchase increased amounts of feed. - Cash flow impacts - Access to fresh water is the challenge for a lot of farmers. This could become an animal welfare issue if rain isn't received in the next month. - There is also extended waits on water truck deliveries, up to two weeks. - Horticulture growers generally have irrigation and are less impacted by the drought, unless restrictions are imposed. - Impact of irrigation bans - The lower the normal rainfall has had an impact on production, in terms of the crop yield. 			
	Degree of social impact	Local level	District level/ multi-district level/Regional/	National level
	<p>The [name] Rural Support Trust is starting to receive calls regarding farmers struggling with the dry conditions. They are starting to hear concerns around the lack of water for animals and feed availability.</p> <p>Capacity of RST to resource the level of enquiry; need for community events and information transfer field days etc.</p> <p>Meat processors [where] e.g. currently have space for small lots in their processing line however there is two-six week wait on bigger orders.</p>			



Press release

Hawke's Bay Rural Advisory Group keeping an eye on the dry – 6 March 2020



The Hawke's Bay Rural Advisory Group is keeping a watchful eye on the region's current dry conditions and reminding farming communities what to do if they need help.

Made up of representatives from rural and primary sector agencies, the Hawke's Bay Rural Advisory Group works closely with Hawke's Bay Civil Defence Emergency Management Group to prepare for and respond to adverse events in the rural community.

Co-Chair Wade Nilsson said the group was only too aware of how the dry conditions were affecting rural communities in Hawke's Bay, particularly in southern parts of the region.

"February in particular was very hot and dry with most areas receiving less than 10 per cent of the usual rainfall, and soil moisture very low across the region," Mr Nilsson said.

"This, of course, has increased our fire risk, as well as putting pressure on feed stocks and water supplies.

"We know this makes things very tough on farmers and growers, and we're doing everything we can to make sure we put people who are struggling in touch with the right agencies."

Mr Nilsson said farmers making plans early was the best way to get through extended dry seasons.

"We know from previous years that making early decisions on the things you can control is the single biggest way to cope during hot, dry summers," he said.

"Put plans and deadlines in place in case we don't get any significant rainfall over the next few weeks; seek advice and support from your rural networks; and think about your feed stocks and water supplies

– including whether you might need to invest in additional water tanks and to stock up on supplementary feed.

“Talk to your bank early if you need to put financial safety nets in place, such as keeping sales proceeds so you can restock when you need to.

“It’s vital that farmers and growers make decisions now so that if no substantial rain arrives, they have a date set to put their plans into action.”

Mr Nilsson said anyone needing support could contact the East Coast Rural Support Trust on 0800 RURAL HELP for free and confidential advice, or visit www.rural-support.org.nz

Those wanting to buy or sell feed could check AgriHQ’s feed noticeboard at www.agrihq.co.nz/feed-noticeboard

He said farmers could also find out if they qualified for financial assistance from the recently established Farm Business Advice Support Fund, a new initiative funded by banks and the government offering support for farmers struggling with farm debt.

“The Hawke’s Bay Rural Advisory Group will also continue to keep an eye on the situation and provide advice to agencies that support the rural community.

“In the meantime, we’re reminding our rural communities that there are plenty of resources out there to help them make the right decisions.”

For more information on the Farm Business Advice Support Fund, visit www.nzba.org.nz/2020/02/25/new-fund-to-get-advice-for-struggling-farmers-is-now-open/

For more information on dealing with dry conditions, visit www.mpi.govt.nz/protection-and-response/responding/adverse-events/dealing-with-drought-conditions/

6 March 2020

HAWKE'S BAY REGIONAL COUNCIL

DROUGHT COMMITTEE

Tuesday 10 March 2020

Subject: SITUATION UPDATE: HAWKE'S BAY REGIONAL COUNCIL SCIENCE TEAM

Item 6

Reason for Report

1. The Hawke's Bay Drought Committee is meeting 9 March 2020 to discuss the current extended dry period and to consider actions that may be required to prepare for the possibility that the dry period may be prolonged further.
2. This report is to inform the Committee on the current climatic and hydrological status, along with a summary of the outlook and seasonal forecasts from various models.

Discussion

3. The NIWA New Zealand Drought Index (NZDI) is updated every two days and as at 6 March, when it was last updated, the NZDI showed dry conditions of varying severity across the region. The driest areas were the Ruahine Range and surrounds (Figure 1).

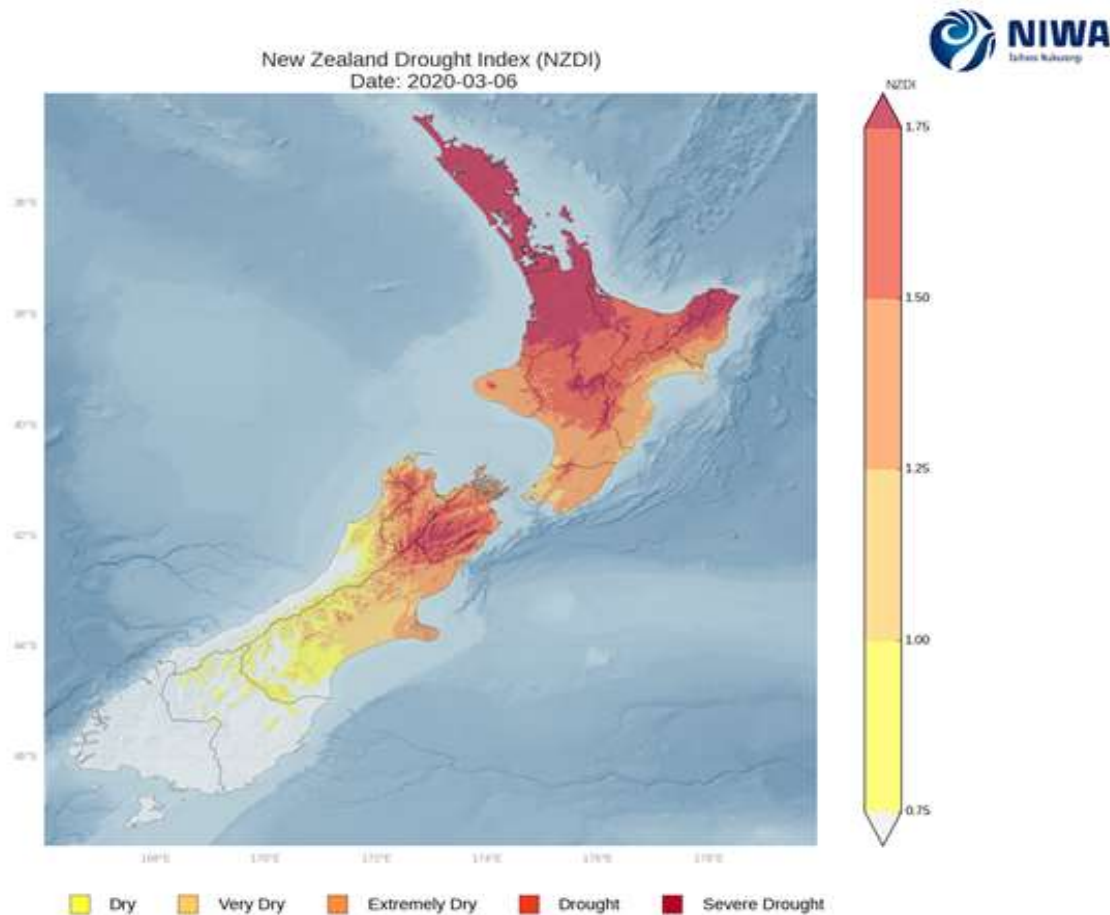


Figure 1: NIWA's NZDI as at 6th March 2020 (source <https://niwa.co.nz/climate/information-and-resources/drought-monitor>).

4. Alongside the NZDI, NIWA's soil moisture deficit map indicated that the driest areas in Hawke's Bay are on the Heretaunga Plains, Central Hawke's Bay and the region's south coast (Figure 2 – map on right).

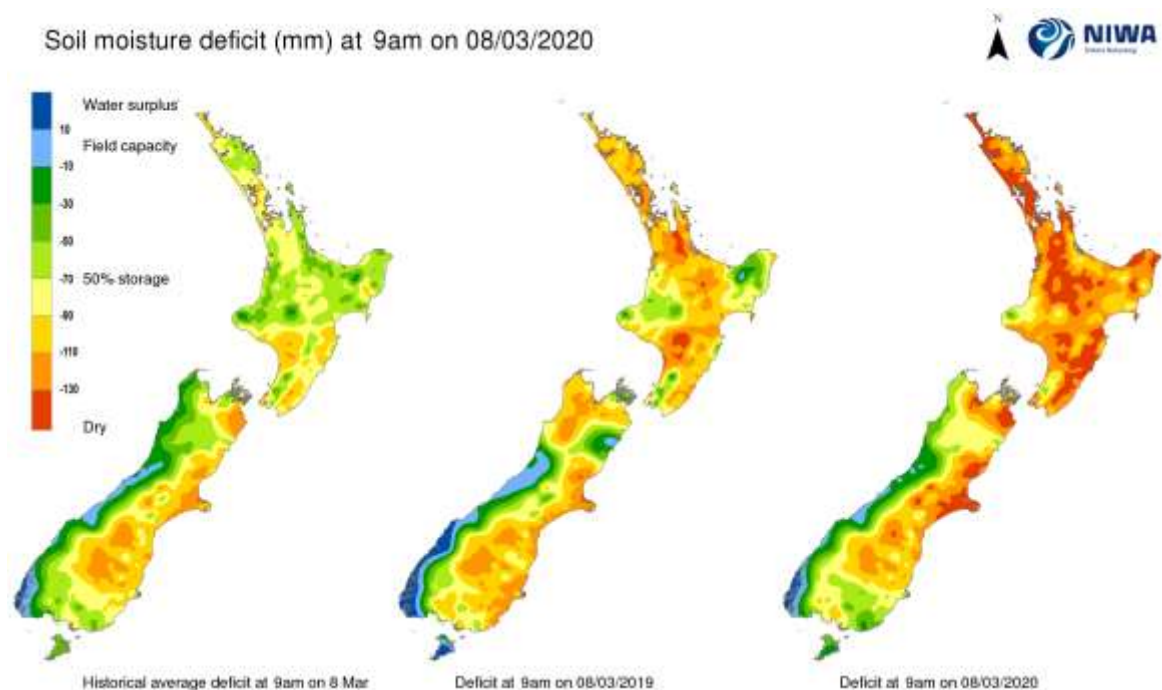


Figure 2: NIWA's daily soil moisture deficit map as at 8 March 2020 (source https://niwa.co.nz/static/climate/smd_map.png?1234)

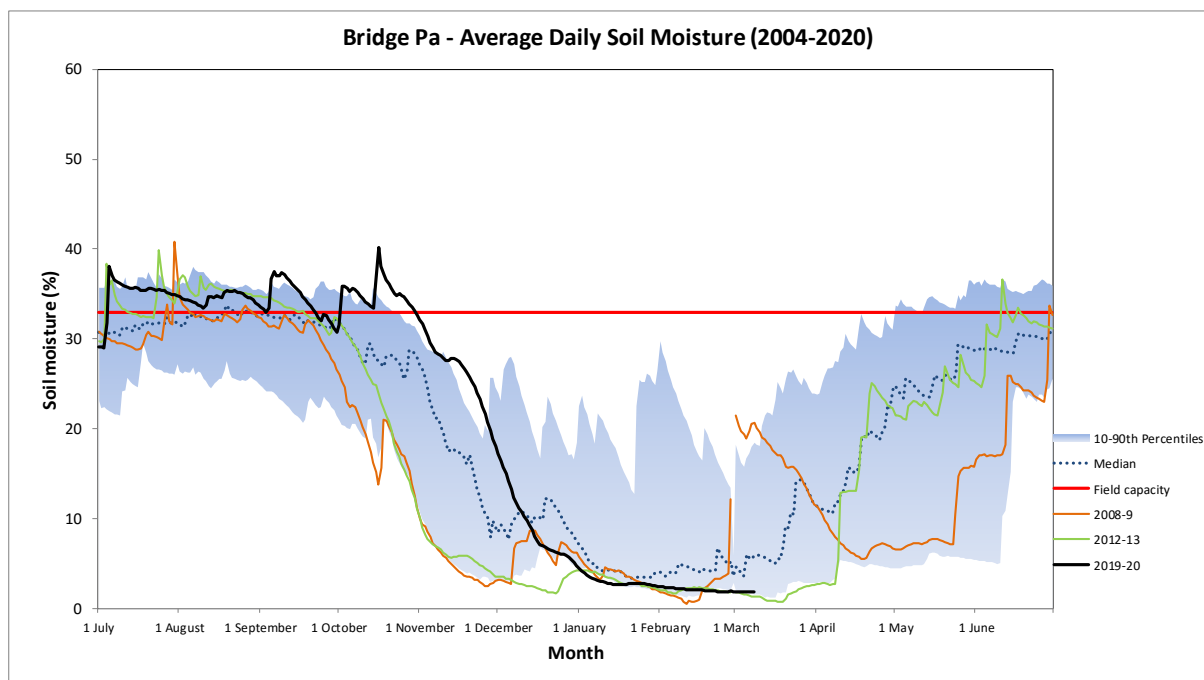
5. Hawke's Bay Regional Council monitoring up until the end of February showed –
 - 5.1 The Ruahine Range, Heretaunga Plains, Ruataniwha Plains and southern coastal area experienced four months of below normal rainfall (i.e. November to February inclusive). February totals in those areas were approximately 10% of monthly averages, with only 2-18 mm recorded at rainfall sites.
 - 5.2 The Nov-Feb rainfall totals in the Ruahine Range and Ongaonga area were the lowest recorded in the last 50-60 years.
 - 5.3 Daytime temperatures in both Nov 2019 and February 2020 were 3 °C warmer than the respective monthly average. Average potential evapotranspiration (PET) rates in those months were the highest recorded since monitoring began 10-15 years ago. December and January were also both 0.8 °C warmer than average. Sea surface temperatures through February and the summer season were warmer than usual around Hawke Bay.
 - 5.4 Cumulative rainfall minus PET at sites in the Heretaunga and Ruataniwha Plains indicated that conditions were drier than average at this point in the hydrological year (July to June) and also compared to 2012-13.
 - 5.5 Soil moisture was below average and in the lowest 10th percentile in most of the region apart from northern areas.
 - 5.6 Many rivers and streams in the southern part of the region were under water take bans.
6. Since the end of February, the region experienced three days of rain and showers. The individual site rainfall totals for seven days from 2 February are displayed in Figure 3. The highest totals were recorded in the north and in the western ranges, though less so in the southern part of the Ruahine Range. Much of Central Hawke's Bay and the south coast received less than 10 mm.



Figure 3: Site rainfall totals from 3rd March 2020 to midday 6th March 2020

Soil moisture

7. As at 9 March, soil moisture on both the Heretaunga and Ruataniwha Plains (Figure 4) showed limited response to the rainfall and remains at similar levels to those seen at the same time in 2012-13.



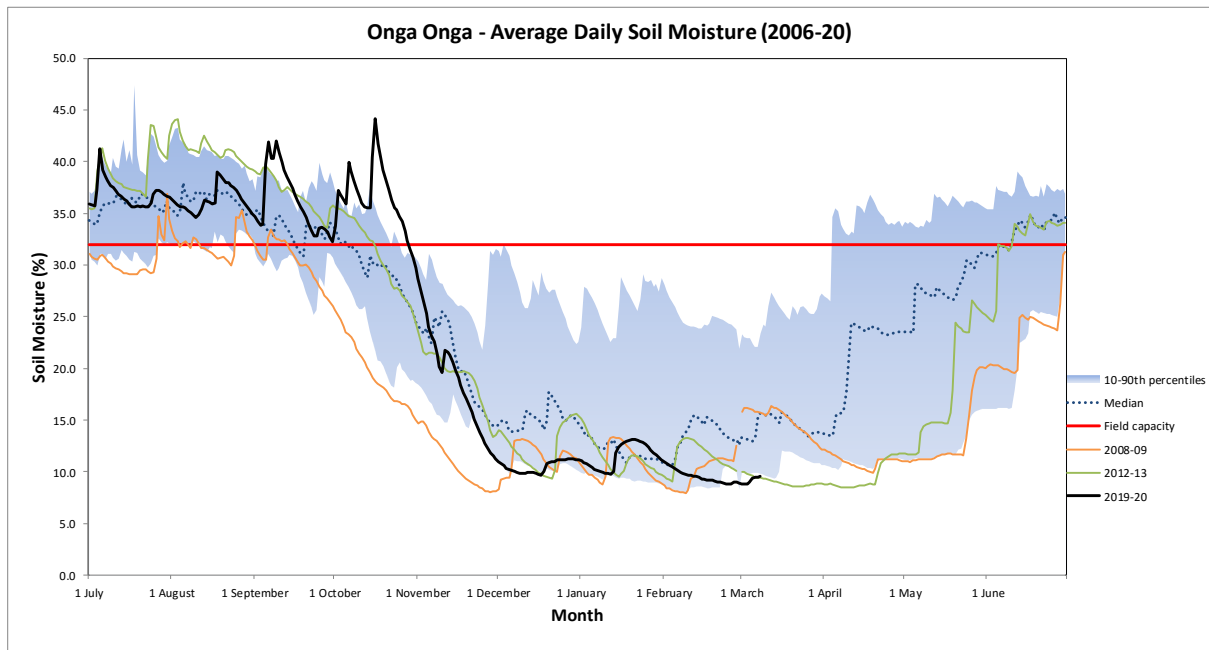
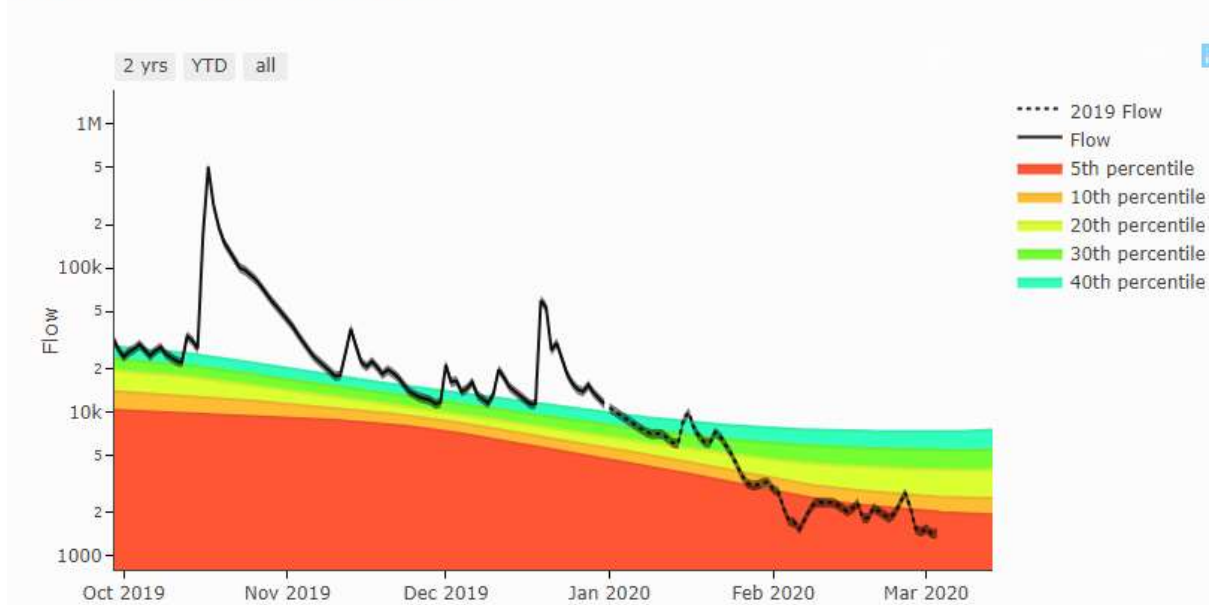


Figure 4: Daily soil moisture levels at Bridge Pa on the Heretaunga Plains (top) and Ongaonga on the Ruataniwha Plains (bottom).

River flows

8. Flows measured in the Ngaruroro River at Fernhill and in the Tukituki River at Red Bridge also remain within the lowest 5th percentile of historical records (Figure 5).

Ngaruroro River at Fernhill



Tukituki River at Red Bridge

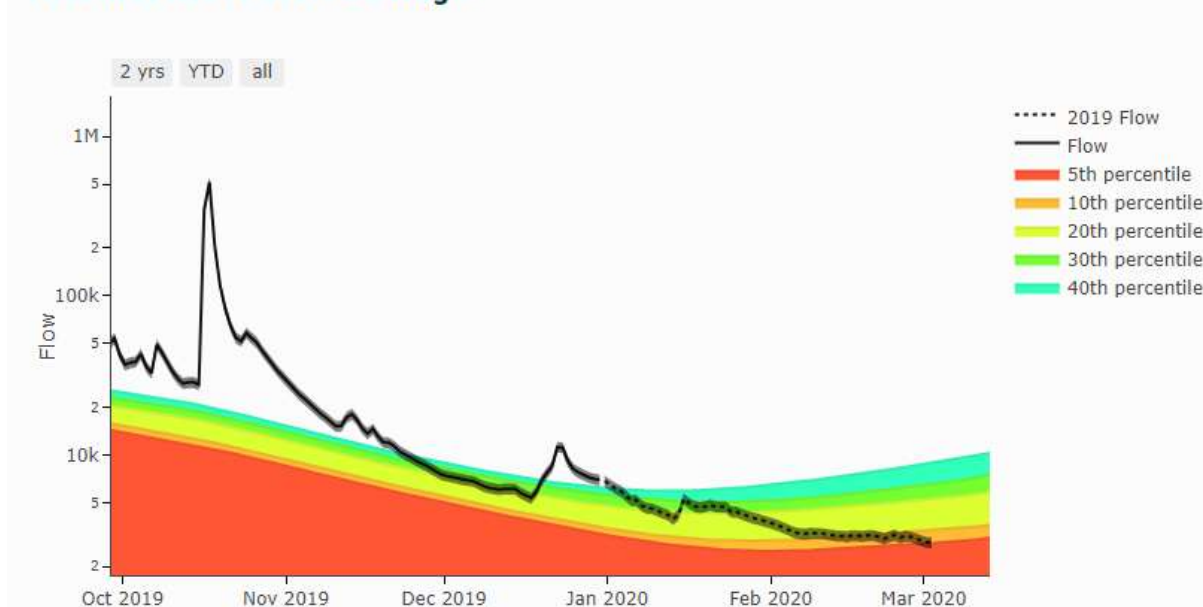


Figure 5: Daily mean river flows in the Ngaruroro River (upper plot) and Tukituki River (lower plot).

Groundwater

9. While some groundwater levels during February 2020 remained normal for that time of year, most levels were below normal or the lowest recorded observation (Figure 6). Although some rain has fallen since groundwater levels were measured in February, telemetered data indicate that groundwater levels have merely stabilised or experienced a small recovery. The continuous groundwater level plot for Bridge Pa (Figure 7) is an example of this. Hence, groundwater levels are currently expected to be similar to the data shown in Figure 6.

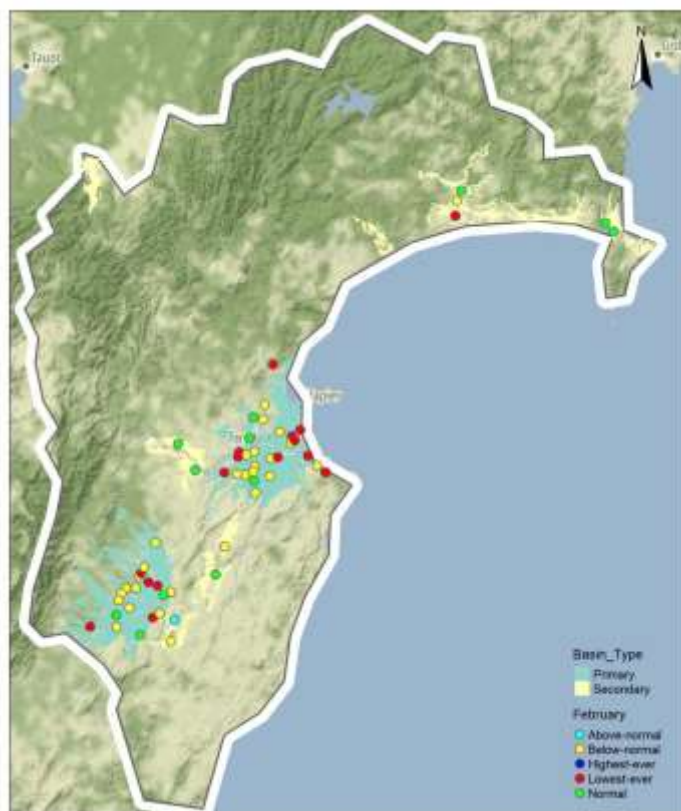


Figure 6: Regional groundwater levels during February 2020, compared with historic groundwater levels for February. Wells with less than 5 years of record were excluded from analysis.



Figure 7: Telemetered groundwater level data from Well 1003 (Bridge Pa, depth 9m below ground level), 1 November 2019 to 8 March 2020

Risk of saltwater intrusion to aquifer systems

10. While aquifer systems in Northland have been reported at risk of saltwater intrusion, due to loss of aquifer pressure during the extended dry period, this is very unlikely to be a risk for major aquifer systems in Hawke's Bay. The Ruataniwha aquifer system is inland and has no direct connection with the coast. The Heretaunga aquifer system has considerable hydraulic head at the coast (up to 10m above ground) and the groundwater is understood to discharge to the ocean approximately 20km offshore. This means that reduction of aquifer pressure during this extended dry period is highly unlikely to cause saline intrusion to the major Heretaunga groundwater resource.

Restrictions on surface water abstraction

11. The recent rain enabled some bans on the Ngaruroro River to be lifted on 6 March but on 9 March flow at the Fernhill site has again dropped below the trigger flow for full ban (2,400 L/s). Extensive bans remain on rivers and streams in Central Hawke's Bay (Figure 8), with a full ban on the Tukituki River at Red Bridge.



Figure 8: The status of bans on rivers and streams in Hawke's Bay. Red symbols indicate a ban is in force. (Sourced 9 March 2020 <https://www.hbrc.govt.nz/environment/low-flows/>)

Outlook

12. The weather outlook in the short term, is for scattered rain or showers to start the week. More significant rain is possible at the end of the week as a low approaches the country from the northwest and an ex-tropical cyclone may influence the country's weather next week.
13. The three month seasonal forecasts (from NIWA, MetService and various forecast models) are for near normal rainfall and normal or warmer than usual temperatures. ENSO is in neutral mode and is not a driver in our weather currently. Tropical cyclone activity is currently subdued but invigorates later in the week. Tropical systems have the potential to disrupt the pattern of weather that has otherwise been dominant, whereby low pressure systems move onto the southwest of NZ and weaken as they encounter a ridge of high pressure over central and northern NZ. Any continuation of that pattern is a concern and to date has contributed to the dry conditions.

Authored by:

Dr Kathleen Kozyniak
PRINCIPAL SCIENTIST (AIR)

Dr Jeff Smith
MANAGER SCIENTIST

Approved by:

Iain Maxwell
GROUP MANAGER INTEGRATED
CATCHMENT MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

DROUGHT COMMITTEE

Tuesday 10 March 2020

**Subject: CATCHMENT MANAGEMENT UPDATE - DEAN EVANS, HAWKE'S BAY
REGIONAL COUNCIL**

Item 7

Discussion

1. Report attached.

Authored by:

**Dean Evans
MANAGER CATCHMENTS DELIVERY**

Approved by:

**Joanne Lawrence
GROUP MANAGER OFFICE OF THE
CHIEF EXECUTIVE AND CHAIR**

**Iain Maxwell
GROUP MANAGER INTEGRATED
CATCHMENT MANAGEMENT**

Attachment/s

[!\[\]\(b792654f2cef9719eabeb6c5be00811e_img.jpg\) 1](#) HBRC Catchment Management update

Catchment Management

Under the current ECS programme Catchment Advisors currently work with landowners and managers, primarily to be more resilient to slope failure, sediment loss and stream protection. However the Catchment Advisors have the ability to expand their messaging to be more inclusive of the broad range of readiness measures to lessen the impact of increasingly dry conditions. Bearing in mind that these measures are for future years and will not deal with minimising the impacts of the current dry spell, and also that incorporating these messages or types of discussion will slow the progress with implementing the normal ECS process.

Key areas of focus could include but are not limited to:

- The establishment of and/or the better utilisation of Shelter Belts:
 - To improve soil and animal health
 - To have as an option for carbon offsetting
 - Alternate income source
- Rotational grazing
 - To improve soil organic matter
 - Increase water holding capacity of the soil
 - Improve grass or crop production
- Reducing soil compaction or pugging
 - Retaining good soil structure
 - Maintain water holding capacity of the soil
 - Maintain grass or crop productive capability
- Direct seeding
 - Minimise cultivation to reduce top soil and moisture loss
- Shade trees
 - Reduce water temperature of streams or dams
 - Maximise water retention (evapotranspiration)
 - Improve ecological health of waterways
 - To improve animal health
- Water storage opportunities
 - Investigate scope of restoring previously drained wetlands and opportunities with natural low points
- Land use optimisation options for dryer conditions
 - Drought tolerant seed or grasses (incl - avoiding shallow rooted plants where possible)
 - Building in land use diversity – not all eggs in one basket
 - Farm forestry, farming and dry tolerant trees

HAWKE'S BAY REGIONAL COUNCIL

DROUGHT COMMITTEE

Tuesday 10 March 2020

**Subject: AIM FOR THE DROUGHT COMMITTEE AND MANDATE TO ACT - CR
WILL FOLEY (BACKGROUND)**

Item 11

Discussion

Hawke's Bay Drought Committee

1. The Drought Committee is activated at times of severe drought in HB to enable a coordinated response to the situation. Participants include District Councils, East Coast Rural Support Trust, Ministry of Primary Industries, and many stakeholders involved in the primary productive sector.
2. This Committee is facilitated by HBRC as part of its overview of natural hazards for Hawke's Bay and the Civil Defence Emergency Management Joint Group.
3. During the 2012-13 summer drought the Committee was chaired by the Regional Council Chairman.
4. Two representatives from Hawke's Bay Regional Council were appointed on 6 November 2019 to the Drought Committee, being Councillors Will Foley and Jerf van Beek.

Authored by:

**Annelie Roets
GOVERNANCE ADMINISTRATION
ASSISTANT**

Approved by:

**Joanne Lawrence
GROUP MANAGER OFFICE OF THE
CHIEF EXECUTIVE AND CHAIR**

Attachment/s

There are no attachments for this report.