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SociaLink Western Bay of Plenty is a registered charity based at The Kollective in 17th Avenue, Tauranga. It is the umbrella peak body for the social and community sector in the Western Bay of Plenty. Its vision is a resourced, skilled and cohesive for purpose sector enabling communities to flourish. Its purpose is to build the capability, confidence, sustainability and voice of community organisations in the Western Bay of Plenty.

Submission on the Bay of Plenty Civil Defence Emergency Management Group Plan 2023-2028

August 2023

In addition to the submission SociaLink – Volunteering Services submitted to this plan, SociaLink wishes to also support the emphasis in the Plan on 'acknowledging that communities, hapū and whānau are the roots of Civil Defence Emergency Management and these roots need to be firmly planted and nourished for CDEM to be meaningful and effective.'

1. Why SociaLink is submitting on the Plan - general comment about our interest

As an umbrella organisation, SociaLink is involved in supporting social service and community organisations doing their work, as well as advocating in various ways for social justice and equity of opportunity for all people living in the WBOP.

Many of the social service organisations we support in the Western Bay of Plenty work with people who are on low incomes, have poor housing or are homeless, and dealing with the fall out of significant health, social and income issues. They are least likely to be able to afford to deal with climate change issues such as being able to move to a more suitable location. This is also an intergenerational issue; people who have been poor for five or more years have a higher probability of remaining poor for the remainder of their lives and that status being passed on to their children. Poor individuals have few assets to help them recover from climate related shocks and stresses such as sea-level rise, floods, droughts, heatwaves, landslides or wild fires. We acknowledge the BOPCDEM Plan observes the effects of climate change will not be spread evenly across the population and this could make existing socioeconomic inequalities even worse.' Pg 9

Our focus therefore on the BOPCDEM Plan is to highlight the needs and strengths of low income and low socio-economic communities and of social service and community organisations and that both are included in planning for emergencies.

SociaLink is available to support the planning and development of the plan and the four 'R's' - Reduction, Readiness, Response and Recovery through

- using our work, contacts and networks in the social, community and voluntary sector to support the development of plans to planning and readiness,
- providing opportunities for forums or feedback on plans
- participating in forums or hosting events.

The rest of the submission highlights specific issues relevant to the BOP CDEM Group Plan

2. Impact of disasters on low-income communities

We acknowledge the BOPCDEM Plan observes the effects of climate change will not be spread evenly across the population and this could make existing socioeconomic inequalities even worse.' Pg 9

A range of factors have been identified as impacting detrimentally on low socio-economic status communities and vulnerable groups

- Poor individuals and communities often experience higher levels of physical illness and mental stress, homelessness, stigmatization, shame and other burdens that compound monetary disadvantage and make it even more difficult to respond to or have a plan if faced by a natural disaster[1].
- People of low socio-economic status may be at greater risk than other groups in disasters and may experience barriers to disaster preparedness or face other adverse situations or experiences during the phases of disaster impact, response and recovery. [2]
- Greater risk or vulnerability to negative experiences, effects and reactions before, during and after a disaster may include
    - greater likelihood of living in fragile housing (poor construction, mobile homes, lack of housing)
    - having difficulty accessing resources after a disaster
    - Experiencing trauma during and after a disaster.

- A lower likelihood of
    - receiving warnings of disasters
    - having the ability to evacuate in response to disaster warnings
    - being able to access post-disaster aid (lack of knowledge about the systems through which disaster survivors receive aid, discomfort with those systems)
    - having money, transport and childcare to leave danger, get to assistance centres or other support services or find food.

Lack of housing options and programmes for people with low incomes to access suitable housing after a disaster has been found to be another barrier, including for people with unreliable employment and older women living in poverty.

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[1] (Leichenko R and Silva, J Climate change and poverty: vulnerability, impacts and alleviation strategies, WIREs Clim Change 2014.doi:10.1002/wcc.287).

[2] SAMSHA (2017) Greater Impact: How Disasters Affect People of Low Socio-economic Status

Stress associated with lack of resources means low income people and households have a harder time from a stress standpoint following disasters than people of higher income and socio-economic status.

Disaster-related losses may aggravate stressors and issues facing households before the disaster. Worry about food is significantly more likely in low income families who may also lack the transportation to travel to find food. Studies of the aftermath of disasters like hurricanes and flooding have found more depression amongst people of lower social economic status, for people already dealing with lack of income and opportunities.

Mitigating these factors needs to be central to emergency planning in the Bay of Plenty and should include supportive participation of these groups as well as social service and community organisations.

Policy suggestions that have been made include a commitment to improving outcomes for people of low SES in disasters, to better meet their needs and mitigate the risks they face in disasters. For example

- targeting evacuation or support aid (eg food, medical supplies, cooling equipment) to low SES households.
- Promotion of poverty reduction and more equitable distribution of wealth through living wage jobs. This could begin during any reconstruction through social procurement policy.
- More accessible and safer housing for people of low socio-economic status and equal access to loans or other financial initiatives.
- Involve specific low socio-economic communities in disaster planning, preparedness and response in terms of their assets and needs.
- Develop robust partnerships with social service, economic, transportation and housing agencies and organisations.

3. Working with social and community organisations and communities on planning about Civil Defence Emergency Management

In the light of all of the above, SociaLink strongly endorses the local welfare committees that work with regional and local social service and community providers to identify how people in vulnerable groups can be included in planning and quickly reached in the event of an emergency.

There is much insight, knowledge and experience within these organisations and communities and a focus on enabling their active participation in the four R's – Reduction, Readiness, Respond and Recovery will pay dividends.

4. Heatwaves need more attention in the Plan

We submit that the Plan and operational plans should include more emphasis on the growing hazard of heatwaves and associated risks. The draft Plan mentions heat as a hazard once in passing. On the BOP civil defence.govt.nz website there is no mention of heatwaves under the 'Know Your Hazards'. Mention of severe weather as a hazard refers to major depressions, severe thunderstorms and heavy rain.

We recognise the devastating impact that natural disasters such as floods, tsunamis and volcanic eruptions will result in and the role emergency management has in these events.

However recent experience of heatwaves over the 2023 northern hemisphere summer across several continents indicates heatwaves of at least some days' duration will occur more often. They have the potential to cause significant stress, including risk of death for members of the population vulnerable to high temperatures and high demand on emergency and other services.

While it may be thought Bay of Plenty localities will not meet the same conditions as countries experiencing heatwaves this northern summer, it has been pointed out there is no single universal definition for a heatwave because different temperatures often have varying impacts in different parts of the world. For example in London, 25C is the temperature at which excess seasonal deaths start to occur whereas in parts of India the temperature would be closer to 40C before that starts to occur. Local conditions are important in defining heatwaves.[3]

The severity of daily maximum temperatures are primary determinants of adverse health outcomes from extreme heat. Minimum overnight temperatures also play an important role in the overall risks associated with heatwaves. The level of humidity is also a factor.

"More frequent and intense hot extremes and less frequent and intense cold extremes are likely for New Zealand in the future, compared with the pre-industrial period."[4]

5. Impact of heatwaves in the Bay of Plenty

Recent analysis by Harrington and Frame (2022) has indicated heatwaves are likely to become a more frequent occurrence in upper parts of the North Island, with associated impacts particularly in Tauranga and Whakatane areas [5]

Their analysis of historical temperature data indicated locations in the upper North Island have been found to experience more than half of their hot days (over 25 C) in the form of protracted hot spells lasting at least 5 days. The research found locations that have low levels of temperature variability as is the case for much of the northern half of the North Island, 'will always experience the emergence of extreme heat-related risks much faster with additional warming.' Based on their research the authors provided an expert judgement of the relative risks associated with extreme heat for different regions in New Zealand which placed Tauranga and Whakatane in a high risk category.

6. Impact of heatwaves on vulnerable populations and on services

The health related impacts of excess heat mean a considerable number of people will be affected through difficulty in regulating body temperature for age, health and socio-economic reasons. The Ministry of Health says babies and infants, older people, those with pre-existing medical conditions or on certain medications, and people living alone are more at risk.[6] Socially disadvantaged groups are often associated with poorer general health, limited social support and access to health services and lifestyle risk factors. People who are homeless, alcohol and/or drug dependent, inability to adapt behaviour to keep cool or with language barriers and difficulty in understanding heat health messages and warnings are likely to be negatively affected, even in a moderate heatwave.

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[3] See Heatwave Guide for Cities, International Federation Red Cross https://preparecenter.org/wp-content/uploads/2022/04/ENG-RCCC-Heatwave-Guide2019.pdf)

[4] Bodeker, G., Cullen, N., Katurji, M., McDonald, A., Morgenstern, O., Noone, D., Renwick, J., Revell, L. and Tait, A. (2022). Aotearoa New Zealand climate change projections guidance: Interpreting the latest IPCC WG1 report findings. Prepared for the Ministry for the Environment, Report number CR 501, pg 51.

[5] Harrington, L.J., Frame, D. Extreme heat in New Zealand: a synthesis.*Climatic Change* **174**, 2 (2022). https://doi.org/10.1007/s10584-022-03427-7

[6] Ministry of Health (2018) Heat Health Plans: Guidelines, Wellington: Ministry of Health

Heatwaves can burden health and emergency services and increase strain on water, energy and transportation services resulting in power shortages and even blackouts. This can disrupt access to air-conditioning as one method of cooling, although there are other recommended cooling methods that don't rely on air-conditioning or that can be built into housing design.

Australian research found an increase in ambulance calls in major cities during heatwaves; people tended to stay within their homes to avoid heat exposure and withheld presenting to emergency departments. The effects of heatwaves on people's health and health service demand can extend for several days following a heatwave event.[7] A study of a ten year period of emergency ambulance calls in Queensland found the rate of calls was significantly higher during heatwaves (12.68%) than on non-heatwave days with significant increases for at least ten days post heatwave. There was a higher proportion of calls on heatwave days for heat exposure, mental health, other/transport and specified medical conditions. The study concluded the results indicated a need for tailored community messaging and targeted resourcing for ambulance services during heatwaves.

Increases in health service demands from moderate heatwaves to severe heatwaves suggest the need for tiered heatwave plans that could be tailored to different levels of severity.[8]

Reviews of the consequences of heatwaves found that the majority of those who have died were of low socio-economic status or low-income as well as older adults. In one heatwave, it was reported free fans distributed in a heat wave were not used by many people who died because they were worried about high utility bills. It was noted people who did not have a working air-conditioner, access to an air-conditioned lobby or an air-conditioned place to visit were 20-30 percent more likely to die than people with access to air-conditioning. People in affected communities were 23 to 34 percent less likely to die if they had air conditioning at home.[9]

7. Planning for heatwaves

The Ministry of Health has recommended that as part of emergency planning, health and community service providers, district health boards, public health units and local government prepare their own Heat Health Plans. It has developed Guidelines for Heat Health Plans, available at health.govt.nz https://www.health.govt.nz/publication/heat-health-plans

These cover identifying stakeholders, staffing needs and wellbeing, communication strategies and setting trigger levels which need to be set to suit local conditions.

Ways in which personnel are responding to heatwaves in this year's Northern Hemisphere Summer include:

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[7] Mason HM, King JC, Peden AE, Watt K, Bosley E, Fitzgerald G, Nairn J, Miller L, Mandalios N, Franklin RC. Determining the Impact of Heatwaves on Emergency Ambulance Calls in Queensland: A Retrospective Population-Based Study.*International Journal of Environmental Research and Public Health*. 2023; 20(6):4875. https://doi.org/10.3390/ijerph20064875

[8] Scalley, BD. Spicer, T Jian, L Xiao, J Nairn, J Robertson, A Weeramanthri, T (2015).Responding to heatwave intensity: Excess Heat Factor is a superior predictor of health service utilisation and a trigger for heatwave plans, Australian and New Zealand Journal of Public Health, 39 (6) p 582-587

[9] Substance Abuse and Mental Health Services Administration -SAMHSA (2017) Greater Impact: How Disasters Affect People of Low Socioeconomic Status, Disaster Technical Assistance Center Supplemental Research Bulletin, Rockville, Maryland.

- Organisations such as Red Cross and volunteers providing water to ambulance crews and others[10]
- Checking on homeless people in temporary accommodation and on streets
- Sharing information with vulnerable people on how to beat the heat, as well as advice on recognising heat exhaustion and heat stress
- Distributing food, water and medication and finding accommodation to people displaced by wildfires.
- Outreach through social media, phone calls and street checks, checking in on older people and people with chronic illnesses, handing out water, fans and caps and sunscreen
- Advice on caring for pets and lifestyle block/farm animals

[10] https://www.redcross.org/about-us/news-and-events/news/2022/ifrc-warns-europe-heatwave-could-have-tragic-consequences.html