Demographic patterns of behaviour in Auckland local government elections

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This report predicts the likelihood of voter turnout in different areas of Auckland. It assigns every Census Area Unit in Auckland with a 'likelihood of voting' score. These scores, displayed in 'heat maps', show which areas are likely to have a higher or lower voter turnout in the 2016 Auckland Council elections.

The report is based on Statistics New Zealand and Auckland Council surveys and predicts likelihood of voting from potential voters' age, ethnicity and home ownership status. It does not include broader attitudinal predictors of voting behaviour, such as political affiliation or orientation, and does not explain why voter turnout may be high or low in a given area.

Objectives and methodology

Background and objectives

Local authority elections are held every three years with the last Auckland local election held in 2013. A total of 959,120 Aucklanders were enrolled to vote in 2010 and 994,022 enrolled to vote in 2013 (Department of Internal Affairs, 2013).

Globally, voter turnout for elections in mature democracies is declining and in New Zealand all local councils have seen a decline in voter turnout since 1989 (Department of Internal Affairs, 2013). Voter turnout dropped significantly at the 2013 Auckland Council local election, falling 15.5% from 51% in 2010 to 35.5% in 2013, one of the lowest turnout rates in the country (Local Government New Zealand, 2015). The number of candidates standing for council positions also dropped 14%, from 545 in 2010 to 470 in 2013. There was no contested election in two council wards and one local board area.

To develop a targeted communications and engagement plan, a richer understanding of voter profile, especially in terms of understanding people's 'risk profile' (i.e., likelihood of voter turnout)[1] across a number of demographic variables for the Auckland region, is informative.

Accordingly, the research objectives were to:

➢ develop an approach to better compare and contrast likelihood to vote for Auckland Council elections via different demographic profiles;

➢ create a 'risk profile' of voter turnout and calculate 'risk factor' scores for these profiles;

➢ apply 'risk factor' scores to the entire Auckland region using the 2013 Population Census data; and

➢ create a heat map visually highlighting these differences to assist communication and engagement strategies to encourage greater voter turnout via geographic / ward / local board level.

Research methodology

Unfortunately, important demographic information such as age and ethnicity is not recorded when people vote in local body elections, so research has inferred people's voting propensity from other data sources, notably surveys in which participants are asked whether they had, or intended to, vote.

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[1] For this report, the term 'risk profile' refers to likelihood of voter turnout based on a specific set of demographic variables.

Buzz Channel conducted analysis on a number of datasets from past surveys that had measured people's likelihood to vote. Specifically, Buzz Channel conducted a meta-analytic approach using a range of data sources that contained information on:

➢ whether they voted in the past (e.g., "the last time you can remember a local government election in an area you were living in, did you vote?"); or

➢ likelihood to vote in the future (e.g., "do you intend to vote in the upcoming Auckland Council Elections?")

The following sources containing appropriate information on past and future voting behaviour were collated to create a meta-dataset:

Data source	Provider	Sample Size
New Zealand General Social Survey 2008	Statistics NZ	1,822
New Zealand General Social Survey 2010	Statistics NZ	1,881
New Zealand General Social Survey 2012	Statistics NZ	1,903
Auckland Council's Elections Research 2013 (combined pre, during, and post)	Auckland Council	3,090
Total		**8,696**

In total, there were **8,696 data points** in the combined dataset.

Datasets were selected that have demographic variables using the same scale options and had a question about intention to vote using a binary (Yes/No) scale.

This meta-dataset was analysed to create a 'risk profile' of voter turnout, in terms of gender, age, ethnicity, home ownership, education, qualification, occupation, tenure, residency status, and so forth. Binary logistic regression was used to assess and reveal which of these variables closely predict local election voter turnout and which of these variables are important in modelling a 'risk factor' score. Essentially, each person's voting behaviour and demographic profile were analysed, to reveal which characteristics were most closely related to their voting behaviour.

Please note, when using the results of any regression analysis, such as the analysis conducted for this study, number of assumptions must be made about the data, namely that:

➢ the sample is representative of the population – in this case, the Auckland population;

➢ the relationship between variables is linear; and

➢ residuals are distributed normally.[2]

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2   Residuals are estimates of experimental error obtained by subtracting the observed responses from the predicted responses. In other words, residuals are elements of variation unexplained by the fitted model.

After testing multiple combinations of variables to see which best explained voting behaviour, the model was finalised down to a selection of main predictor variables that best replicated actual local election turnout results.

However, due to data sources that focused on people's intention to vote or their likelihood to vote in the future, the meta-dataset over estimated people's propensity to vote. On average, the survey data revealed that 66% of people said they would, or had, voted, when in fact voter turnout for the 2013 Auckland Council local election was 35.5%. To account for any over-inflation on intention to vote, the final 'risk factor' score modelling was weighted using actual local election turnout results over the last few years.

Main results

This study found that the main predictor variables that best replicated voter turnout for Auckland Council elections were:

- Age – older individuals were more likely than younger individuals to vote;
- Ethnicity – NZ Europeans were more likely to vote than Asian people and those of other ethnic groups; and
- Home ownership – those who own their own home were more likely to vote than those who do not own their own home.

It is important to note the analysis shows that these factors predict voting behaviour to differing degrees when controlling for other factors. In other words, the factors don't apply equally, depending on other characteristics of the demographic profile. In this respect, the three main predictor variables listed above offer the best combination within the parameters of this research taking into account the sample size of the meta-data, as well as available measures within original data sources (e.g., gender, ethnicity, age group, how long they have lived in Auckland, whether they own or rent their home).

While variables such as tenure in Auckland and qualification were, overall, useful indicators of voter turnout, the effectiveness and accuracy of the model diminished when computed with too many predictor variables. Furthermore, less significant variables such as gender further diluted the analysis and had to be excluded from the model.

Consequently, the 'risk factor' scores were calculated for each demographic profile based on age, ethnicity and home ownership. Those assigned high voter likelihood scores were likely to be older, NZ Europeans and own their own home. On the other hand, those assigned low voter likelihood scores were likely to be younger, Asian or Other ethnic groups, and those who do not own their own home.

Finally, this scoring system was applied to the 2013 Population Census data for the Auckland region to formulate an overall risk factor score for each geographic area which was the foundation of the heat map.

Accordingly, areas with high voter likelihood scores have:

- a greater proportion of NZ Europeans;
- a greater proportion of older individuals; and
- a greater proportion of those who own their own home.

On the other hand, areas with low voter likelihood scores have:

- ➢ a greater proportions of Asian and other ethnic groups;
- ➢ a greater proportion of younger individuals; and
- ➢ a greater proportion of those who do not own their own home.

Please refer to the 'Voter pattern heat map' in the Appendix for further analysis.

Heat mapping is a useful way to compare and contrast likelihood to vote at a geographic ward or local board level. Since it highlights areas with low or high propensity to vote in a visual format, it provides a starting point for Auckland Council electoral officers and staff to consider in their communication and engagement strategies to encourage voter turnout for 2016.

While this model provides a simple yet effective 'risk profile' for different demographics, the limitations of all regression techniques is that you can only ascertain relationships, but never be sure about the underlying causal mechanisms.

To address this, the discussion section will examine the general literature and the plethora of social research studies that explore the reasons why an individual may or may not choose to vote.

Discussion

Many studies have been conducted to explain the motivations behind why individuals choose to vote versus not vote.[3]

Auckland Council conducted an awareness survey before, during and after the 2013 Auckland Council elections (Auckland Council, 2013). According to this research, those who were *more likely* to vote in the local government elections were older (55 and above), male, European, and those who have been Auckland residents for 10 years or more. On the other hand, those who were *less likely* to vote in Auckland Council elections were younger (18-24 years old), Asian and Indian ethnic groups, and those who had been Auckland residents for less than a year.

This is supported by a 2015 Auckland Council study of data contained in the 2013 General Social Survey (Auckland Council, 2015) comparing voters and non-voters. A strong relationship was found between the incidence of voting and the voter's age in which the older the respondents, the more likely they were to vote. On the other hand, those aged 18 to 24 years, those not in paid employment and those of Asian ethnicity had low voting incidence rates.

Similar findings are evident in studies conducted around the general elections in New Zealand. Over the years, a plethora of social research has been conducted around general elections in New Zealand from the 2014 post survey conducted by the Electoral Commission (Electoral Commission, 2014), to the non-voters research in 2008 and 2011 general elections by Statistics New Zealand (Statistics New Zealand, 2014), as well as the comprehensive New Zealand Election Study (NZES) data compiled since 1990 (New Zealand Election Study, 2015).

According to the 2014 post survey conducted by the Electoral Commission, those who were *more likely* to be enrolled to vote for the 2014 NZ general election were of European ethnicity (98% versus 91% for non-European ethnicity) and those aged 50 and above (99% versus 93% aged 18-49). On the other hand, those who were *less likely* to be enrolled to vote for the 2014 NZ general election were of Pasifika ethnicity (88% versus 96% for non-Pasifika ethnicity), Asian ethnicity (84% versus 97% for non-Asian ethnicity), and those aged 18-29 (88% versus 97% aged 30 and above) (Electoral Commission, 2014).

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[3]   Please note, key studies referenced in this report come from various sources from academic journals to government publications with different methodologies and practices utilised to obtain their results. It is, therefore, important to acknowledge these methodological differences in the interpretation of findings.

Despite obvious differences between the propensity to be enrolled to vote in New Zealand general elections and voting in local authority elections (the former based on electing Members of Parliament and the latter involving elections for city and district councils, regional councils and District Health Boards) the above findings appear to suggest that similar groups of individuals are most at risk of not participating in various types of elections. This lack of political engagement in specific groups gives rise to an important question: why are these individuals less likely to participate in comparison to others in society?

Factors influencing voter turnout

Different socio-demographic characteristics, institutional arrangements, and structural factors have been identified as being associated with voter participation, such as age, ethnicity, employment status, qualification, political backgrounds and experience, diversity, population size, as well as motivational factors (BC Stats, 2010; Hajnal & Lewis, 2003; LGNZ, 2013; MMResearch, 2015; Statistics New Zealand, 2013; Webster, 2014). While individual behaviour and motivation of potential voters[4] is critical in this field of study, for the purposes of this research project, this report will focus predominantly on the characteristics of the electorate as a whole.

Structural factors operating at macro level, such as population size, diversity and demographic, can show broad patterns and trends around voter turnout. For instance, in cities or council areas with large populations or in communities where there is a high level of diversity (e.g., those with large migrant communities), this can potentially result in lower voter turnout in comparison to cities or areas with smaller populations or a lower level of diversity (LGNZ, 2013). According to Geys (2006: 643), this is largely due to the fact that "cities are more individualistic in nature such that there is less 'social pressure' to turn out and cast a vote in (densely populated) city communities" (Geys, 2006: 643).

Similarly, ethnic density is believed to result in increased social cohesion, trust and voter turnout (Putnam, 2007; Statistics NZ, 2013). Taking into account the fact that New Zealand (and especially Auckland) is a multicultural country, it is crucial that all ethnic communities are fully engaged in the political process at both local and national level. Traditional election studies on ethnic communities in the UK and US have shown minority ethnic groups, in particular, experience political disengagement (Sanders,

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[4]   According to the research conducted by BC Stats (2010) on the demographics of voters in British Columbia, voting appears to be largely habit-forming, stemming from a sense of ethical obligation or civic duty. In other words, people who have voted in the past, and felt that their action had been reinforced in a positive way, are more likely to repeat this action in the future.

Fisher, Heath & Sobolewska, 2014). While past studies have shown Māori, Pacific and Asian people are, in general, less likely to vote compared to the general population (Park, 2010; Sullivan, 2010; Iusitini, 2013; Iusitini & Crothers, 2013), there is still, however, a gap around what approaches need to be taken to increase awareness and enhance political engagement for different ethnic communities in Auckland.

On top of population size and diversity, another critical factor for voter turnout is 'population stability' (Hoffman-Martinot, 1994; Geys, 2006). The assumption is that those who have high stability are more likely to be socially and politically engaged. One of the core components of population stability is home ownership, whereby the assumption is that because homeowners are more likely to remain in the same area or region for longer periods of time in comparison to those who rent, they are also more likely to be invested in their own suburb or city, resulting in greater voter turnout. Furthermore, those who own their own home are more likely to feel and see the effects of local government decisions in their rate and zoning rules.

Another group considered to have high stability are older people. The general literature suggests communities with a high proportion of older residents are most likely to have high voter turnout, whereas communities with a higher proportion of young people are likely to have a lower voter turnout (LGNZ, 2013). Interestingly, cultural displacement and disempowerment is strongly associated with turnout inequality between young and old voters (Henn & Foard, 2011; Institute for Public Policy Research, 2013).

Effective election campaigns

Practical steps can be taken to increase voter turnout, for example, at an institutional level. Studies have found complex voting systems have been found to reduce people's willingness to vote and basic voting methods such as ballot boxes, can have a direct effect on turnout.[5] Not surprisingly, the use of postal voting was likely to result in higher voter participation in local government elections in comparison to attendance voting for local elections in Australia (Victorian Local Governance Association, 2013). This initially was the case in New Zealand when postal voting was introduced for local government elections; however voter turnout has since declined significantly. Furthermore, when people feel confident about how the voting system works, turnout is likely to be higher, whereas turnout is likely to be lower where confidence is lacking (LGNZ, 2013).

Timely reminders have also been found to be useful in increasing voter turnout. In 2008, New Zealanders received a txt (SMS) reminder from the Electoral Commission's 'orange

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5   When Lower Hutt City reverted to ballot box voting for the 1992 elections, turnout dropped from 46% to 26%

guy' resulting in a 4.7% point higher turnout than those who did not receive the txt message (Electoral Commission, 2009). According to the Electoral Commission (2009: 1):

> "This level of impact is large for a direct marketing initiative of its type and for a turnout differential between matched cohorts and indicates an effective and cost efficient way of prompting people to vote. Assuming the txt recipients were younger and more likely to be first time voters due to the general profile of txt users, large-scale adoption of this intervention could be particularly effective at motivating a priority audience."

While these traditional campaigns and initiatives are essential in maintaining political engagement, to increase voter turnout it is crucial local governments formulate a strategic approach that fully encapsulates structural, institutional and socio-economic factors. As recommended in the International and National Electoral Trends presentation for elections reference group workshops held by Auckland Council electoral staff in late 2014 and early 2015, council may need to consider targeting certain groups (eg those aged under 39) in an effort to increase voter turnout (Ofsoske, 2014).

Engaging the family and/or community

Key drivers in low voter turnout for particular ethnic groups generally revolve around lack of awareness, understanding and interest in politics. According to Iusitini (2013), election campaigns and initiatives for Pacific people, for instance, need to focus on lessening feelings of uncertainty about the political process and encourage participation by targeting not only individuals, but by involving the entire family or community in a collective manner. Similarly, the general literature on Māori and political participation emphasises the importance of social units such as whānau, hapū and iwi. This is arguably founded upon the concept of *whanaungatanga* which has "clear links to the notion of 'social capital' and 'civic engagement' as they all define the relationships of people within their communities" (Waitoa, 2013: 6).

A successful case study involving the engagement of specific ethnic communities focused on the use of languages of the targeted audience. The "Asian American Voter Project" was a US randomised field experiment that focused on mobilising ethnic communities with a long history of low participation. This study found language, for instance, plays a significant role in many ethnic communities that speak language(s) other than English at home (Asian American Justice Center, 2013). By communicating the political process using their mother tongue, it not only broke down the language

barriers to voting, but also empowered people by enhancing the social and cultural capital of their community (Webster, 2014), allowing them to have a stronger voice.

Using social media campaigns

A 2014 report by the New Zealand Electoral Commission found those aged 18 to 29 were more likely to notice advertising via social media, websites, signs and bus shelters (Electoral Commission, 2014). Perhaps the most notable use of social media in an election campaign was the 2008 US election where college students volunteered in historic numbers for the then-Democratic nominee Barack Obama's ground campaign. These young volunteers were crucial in breaking down the barriers for their peers to enhance youth engagement with the voting process using social networking, phone banking (i.e., telephone canvassing), and even meeting their peers face-to-face (MMResearch, 2015).

Another interesting election campaign was the 'Inspire Democracy' (#inspiredem) launched by Elections Canada where it allowed individuals to access research findings and discuss their thoughts and opinions on a digital platform. The use of digital channels is being increasingly recognised as an effective way of raising awareness with the general population, in particular, the younger audience. This was one of the main aims on the 2015 campaign for Queensland (Australia) state elections in which the idea was to use interactive website banners to engage "young, slightly apathetic potential voters" (WPP, 2015: 19). These website banners asked for opinions on apolitical, fun and topical issues such as 'are dogs better than cats? Is mowing your neighbour's grass rude? Is orange the new black?' When people selected 'yes' or 'no' they received a thank you note and a link to enrol to vote (WPP, 2015). The 2014 general election in India also used a digital platform but in this case, used the inspirational story of 97-year old Shyam Saran Negi, the first voter of independent India, and shared this story on YouTube. This video was viewed nearly 3 million times (WPP, 2015).

In order to engage and encourage the younger demographic to vote in local authority elections, campaigns need to take into account which channels they are exposed to the most.

Introducing online voting

Election campaigns and initiatives need to take into account the fact that increasingly, people's identities and forms of expression have shifted from traditional channels to new forms of media and culture. For example, political identity is now believed to be

shaped predominantly by popular media through television, blogs and social media (Loader 2007; Bennett, 2008; Henn & Foard, 2011). Accordingly, it could be argued that active participation and political expression through new technologies for important civic affairs is a natural progression for most local governments (Online Voting Working Party, 2014).

In Auckland Council's 2013 submission to the Justice and Electoral Select Committee, online voting was highlighted as a logical step in giving voters a further voting option. By being able to enrol and vote electronically, the assumption is that "the digital revolution presents opportunities to recast and reinvigorate the relationship between government and the citizenry" (McKinnon, 2015: 7-8).

New Zealand's Online Voting Working Party report said:

"...online voting represents an opportunity to modernise and enhance the operation of local democracy in New Zealand. We think that online voting should not replace postal voting, but instead should create options for voters, better enabling New Zealanders to vote how, when and where they want. By adding to the current postal voting system, we think that online voting has the potential to enrich voters' experience of their local democracy, allowing them to engage in different ways and make it easier for people to act on their intention to vote in local elections."

Conclusion

Various factors from socio-demographic characteristics, institutional arrangements to structural components have been identified as being associated with voter participation. Many studies have found age, ethnicity, employment status, qualification, diversity, population size, as well as motivational factors influencing voter turnout.

This study found that the main predictor variables that best replicated voter turnout for Auckland Council elections were:

➢ Age – older individuals were more likely to vote than younger individuals;

➢ Ethnicity – NZ Europeans were more likely to vote than Asian people and other ethnic groups; and

➢ Home ownership – those who own their own home were more likely to vote than those who do not own their own home.

Applying the calculated 'risk factor' scores for each demographic profile based on age, ethnicity and homeownership, the final model was applied to the 2013 Population Census data for Auckland region. As a way of supporting local authority elections, the heat map provides a geographic lens to voter participation by analysing population groups more susceptible to political disengagement. Hence, rather than analysing voter participation as a unique political issue, this research project addressed the problem as a reflection of social attitudes, using a customised and 'core' model of voter participation.

Accordingly, the ultimate aim of this research is to provide a starting point for Auckland Council electoral staff to help formulate appropriate campaigns and messages for communities and age groups that less likely to vote in next year's elections.
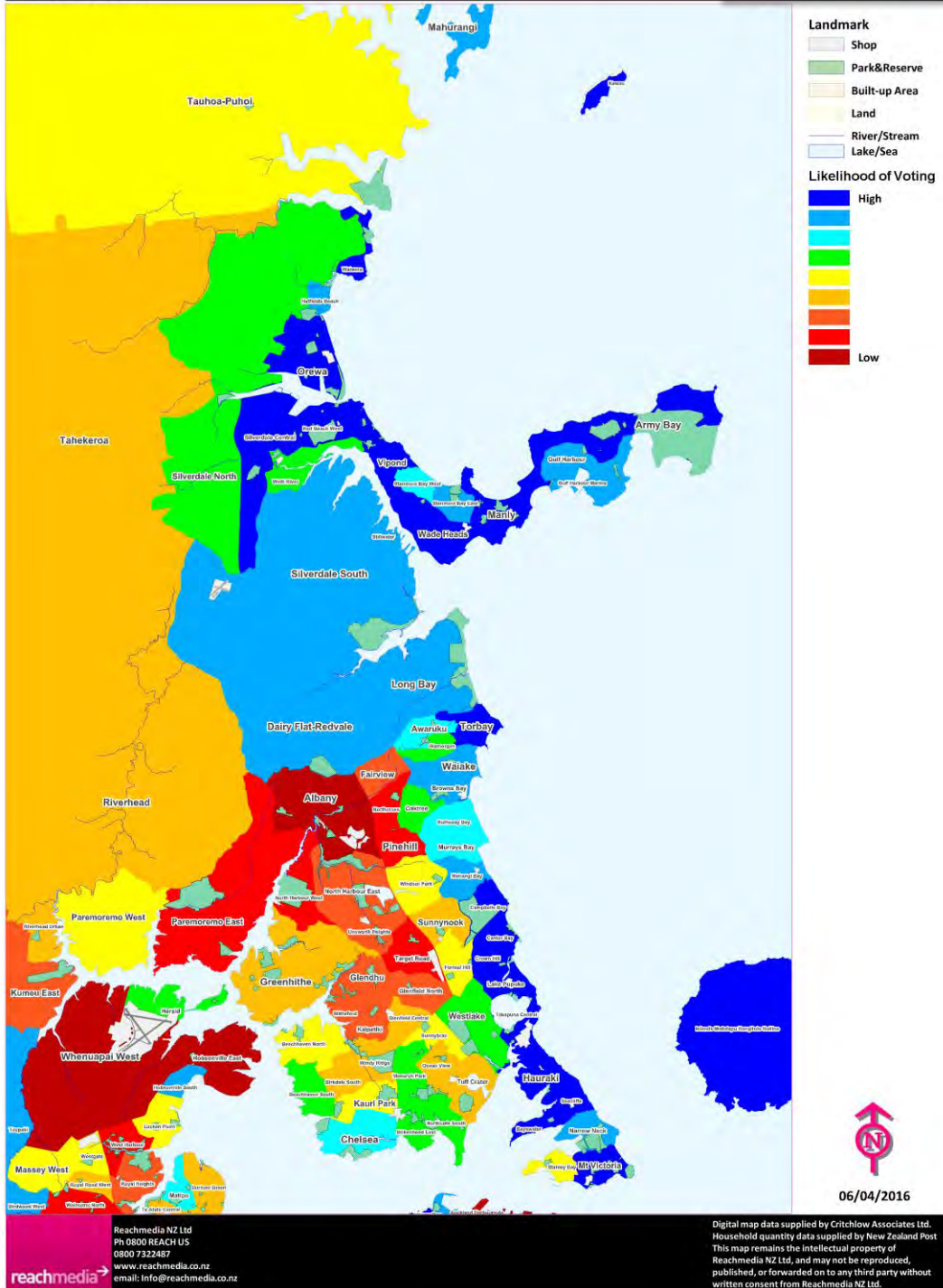
Appendix

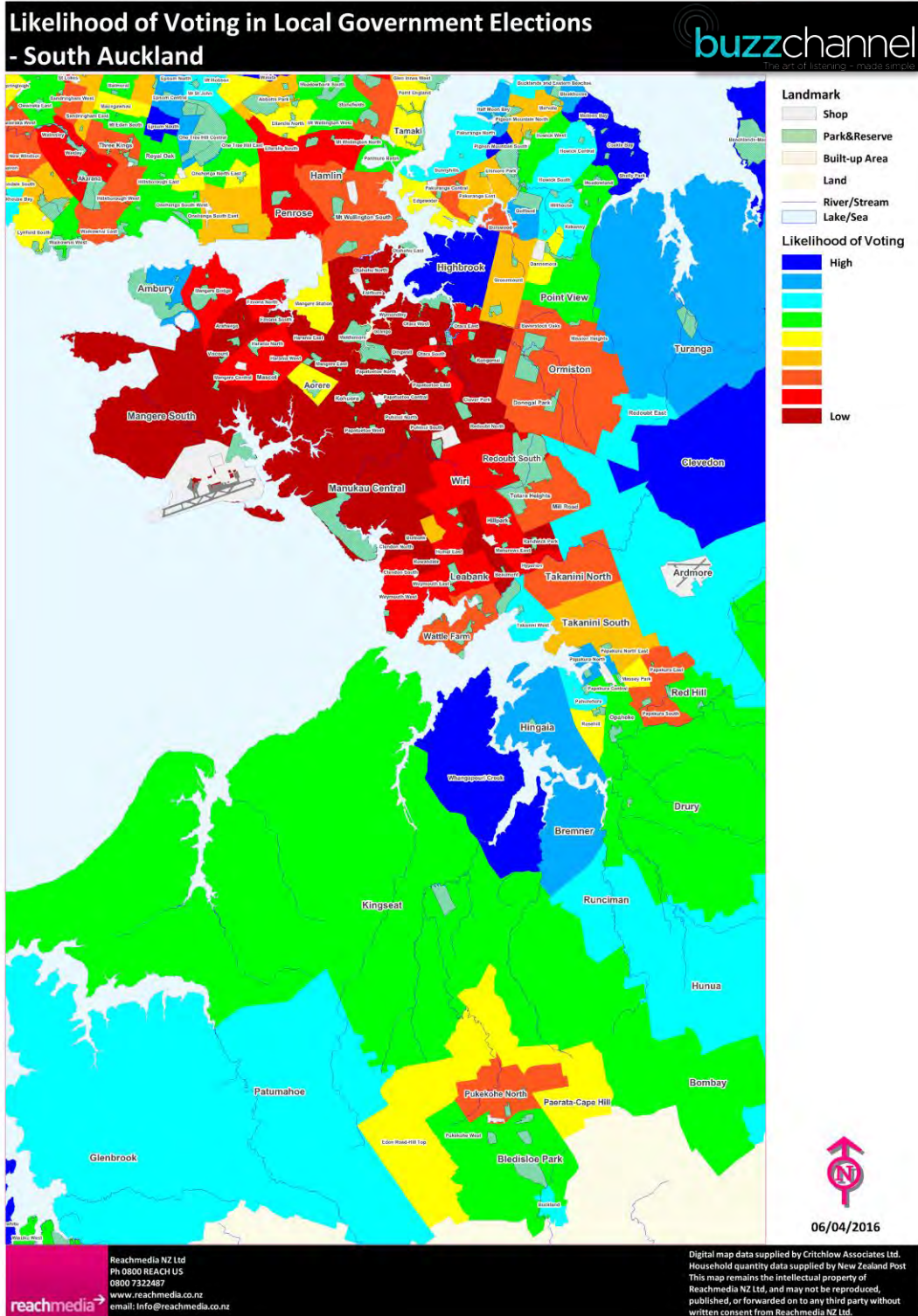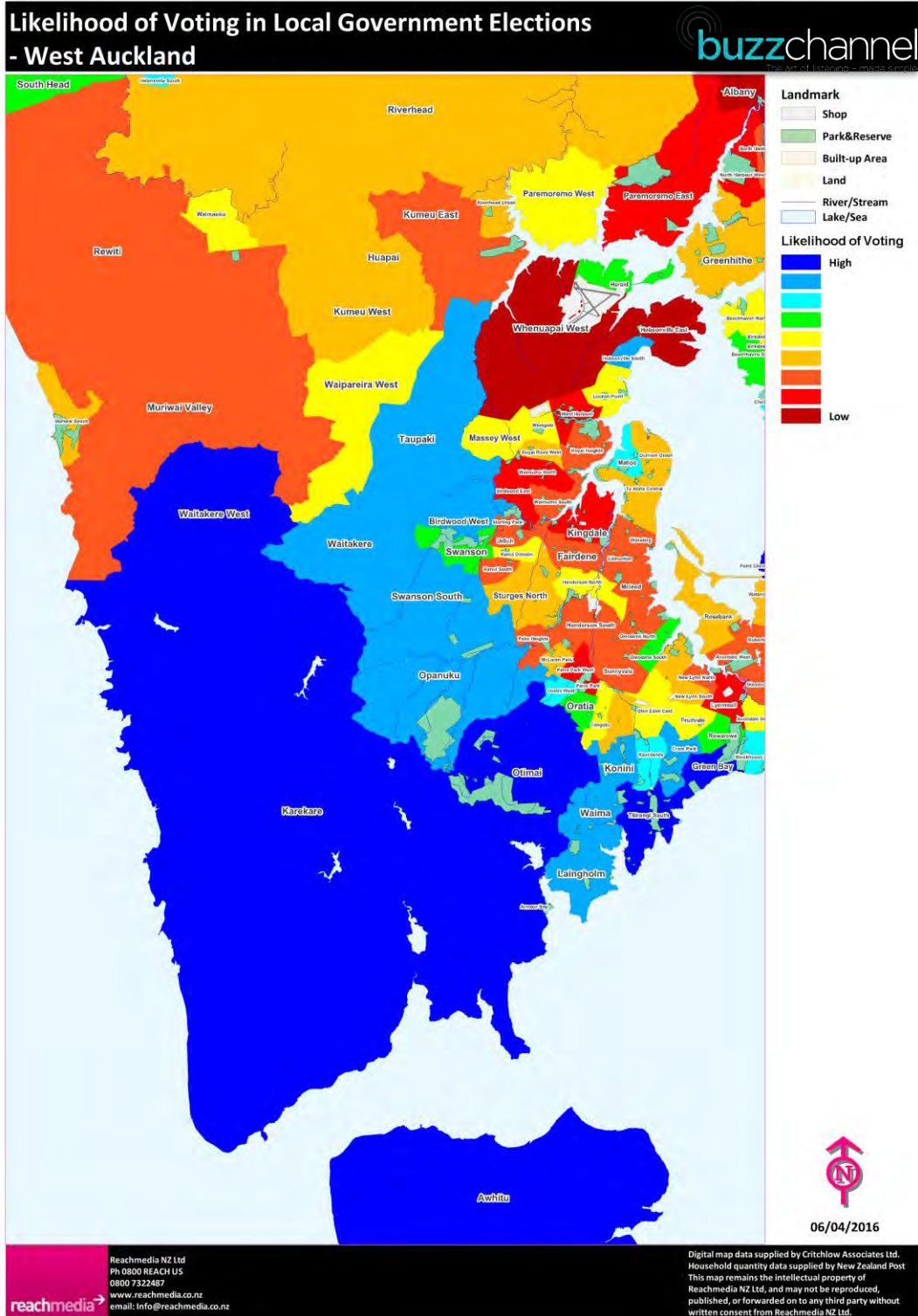Likelihood of Voting in Local Government Elections - Central Auckland
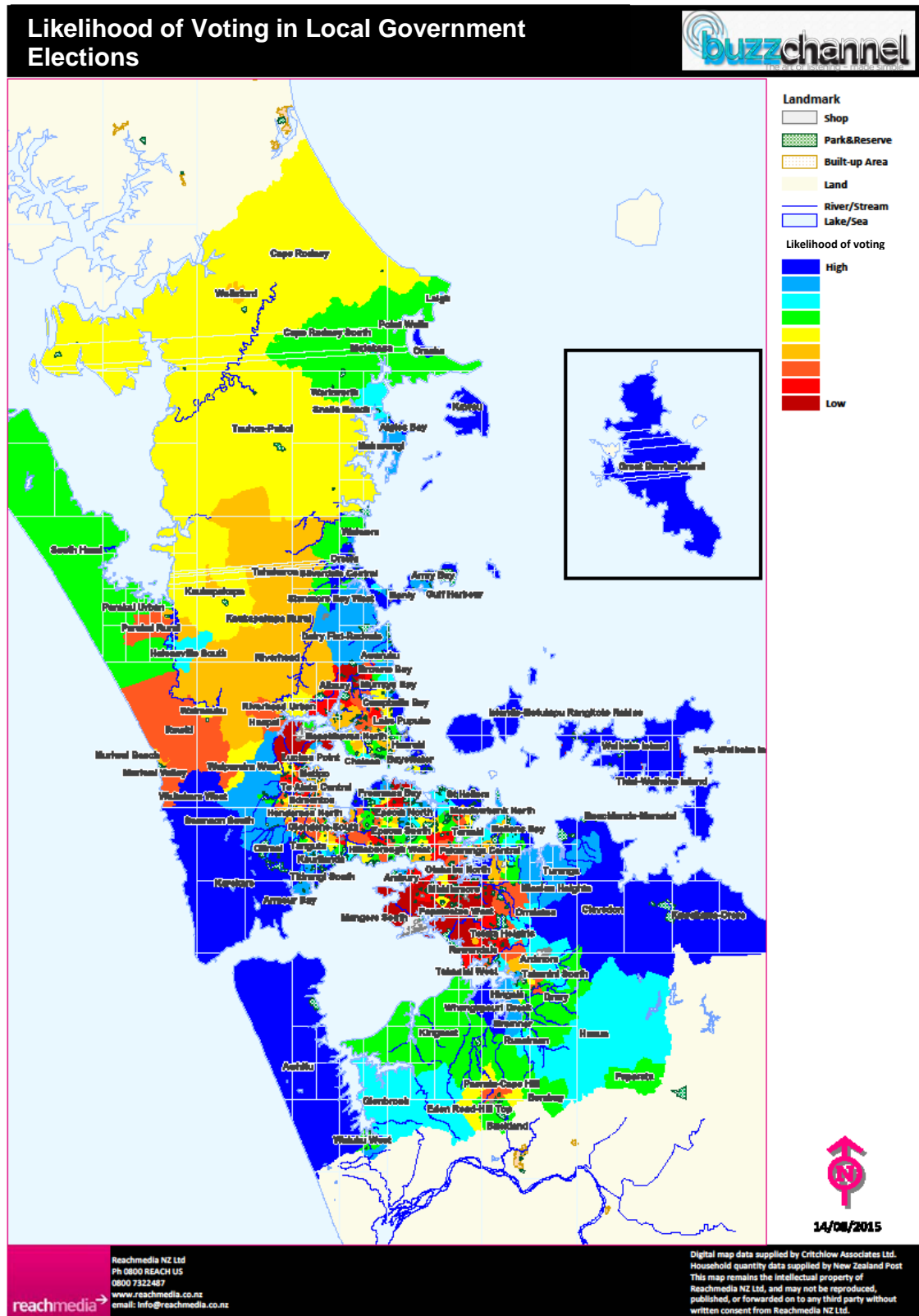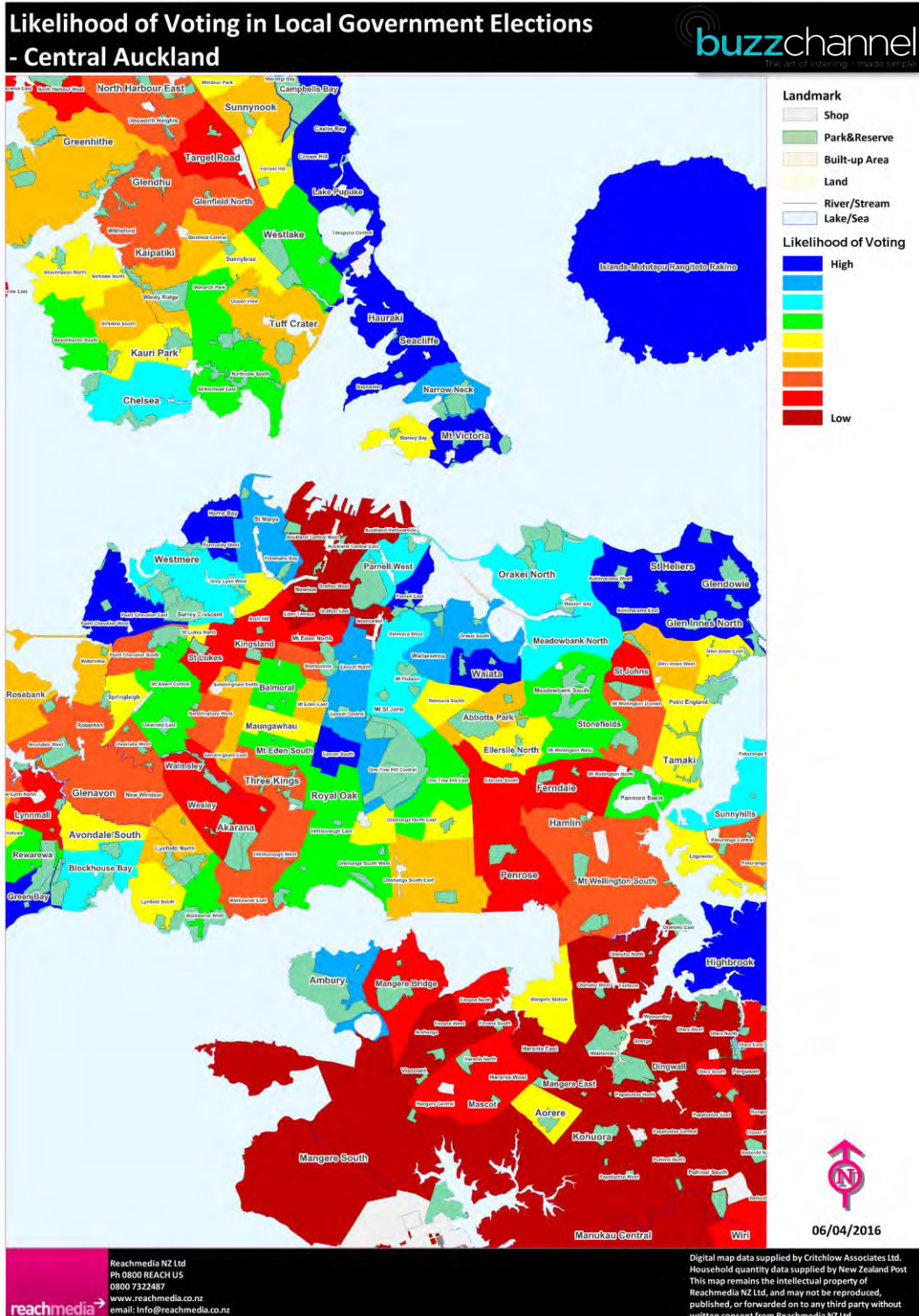
Likelihood of Voting in Local Government Elections - East Auckland
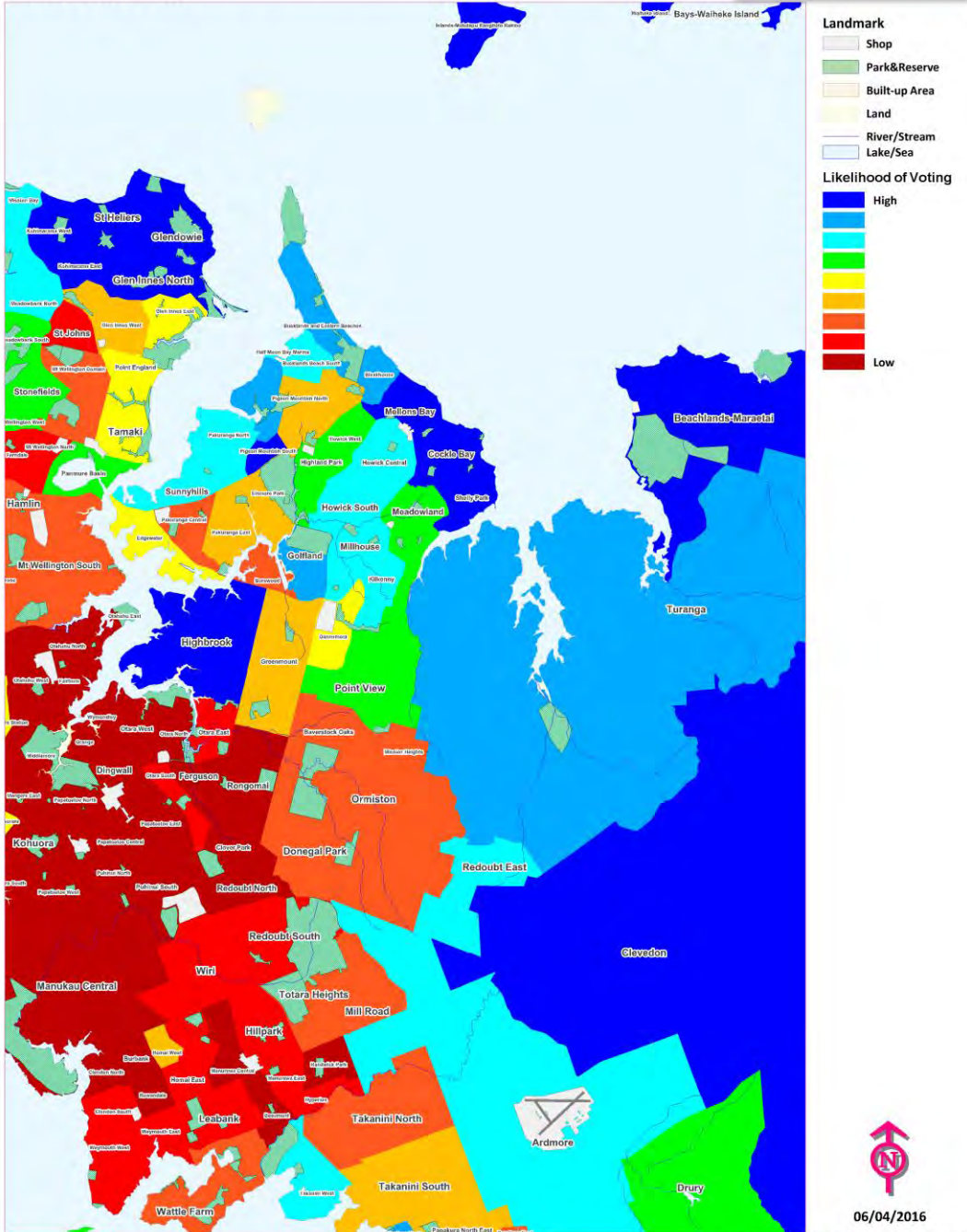
Likelihood of Voting in Local Government Elections - North Shore

Likelihood of Voting in Local Government Elections - South Auckland

Likelihood of Voting in Local Government Elections - West Auckland

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