I hereby give notice that an ordinary meeting of the Golden Bay Community Board will be held on:

| | |
|---|---|
| **Date:** | **Tuesday 14 August 2018** |
| **Time:** | **9.00 am** |
| **Meeting Room:** | **Takaka Office, 78 Commercial Street,** |
| **Venue:** | **Takaka** |

# Golden Bay Community Board

# Correspondence

**ITEM** **PAGE**



**Note:** The reports contained within this agenda are for consideration and should not be construed as Council policy unless and until adopted.

**Emma Gee**

**From:** Karmarico <karmarico@xtra.co.nz>
**Sent:** Thursday, 28 June 2018 10:40 a.m.
**To:** Richard Kempthorne; Stuart Bryant; Sue Brown; Golden Bay Community Board; Peter Canton; Kit Maling; Tim King; peter.hawkes@tasman.govt.nz; Trevor Tuffnell
**Cc:** gbgrandstand@gmail.com
**Subject:** Please reconsider the GB Grandstand decision

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Dear Councilors,

Please, please, reconsider your decision on the Golden Bay Grandstand. This issue has been unnecessarily expensive, distressing, and, I am sure, awkward for all of you.

Please stand in favor of keeping the grandstand in it's current location, as a functional part of the Rec Centre.

Visually, from the middle of the sports field, the two buildings, our dear old Grandstand and the newly constructed Red Centre building look compatible. The new building actually looks like it was designed as a companion to the Grandstand, accenting the lovely old curved roof, as though the architects meant the new building to complement the existing one, and that the two were meant originally to stand side by side.

Do you know that the building in question also has a wooden floor? There is no other wood floor at the Rec Centre.

The Golden Bay Grandstand is a community asset, please let the community rejuvenate this sound and useful old building in situ, and if you feel a trial period is in order, make it longer than the proposed 1 year.

Sincerely,
Karen Pessione
Takaka

RemunerationAuthority

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# Information Paper

## Determining the Remuneration of Local Government Elected Members – Oversight of Issues

**30 June 2018**

Attachment 2

## Table of Contents

## Introduction

1. This paper describes the changes that the Remuneration Authority is making to its approach to setting remuneration for local government elected members. The paper does not cover in detail allowances or expense reimbursements, which were addressed by the Authority in the 2017 Local Government determination and which will be further addressed again when the current work programme on remuneration is completed. The significant changes will be introduced following the 2019 local government elections, with some adjustments prior to that in the 2018/19 determination and the 2019/20 determination.

2. The Authority would like to thank all the councils and individuals who assisted in this process. We appreciated the interest of the sector and the ideas that were put forward. While not all have been able to be picked up and implemented by us, the range of suggestions and the conversations we had with many of you certainly gave us a deeper and more nuanced understanding of the issues facing local government.

## Background to this Review

3. The Local Government Act 2002 gave the Remuneration Authority the responsibility for setting remuneration for local government elected members. To prepare for its first determination under this regime (dated 24th June 2003), the Authority undertook a review of roles and responsibilities of members, issued a discussion paper and received submissions. It then "*established appropriate models to assist in determining the cost and representation for each local and regional authority.*" [1] The model used four criteria – population, operational expenditure, assets controlled and rate of population change. The June 2003 Determination said that "*the application of these models resulted in an indicative pool of money notionally attributable to each local and regional authority. These indicative pools were used in general by the Authority in ultimately determining the major portion of remuneration for each member*". Some meeting fees were still in place at that time. To assist the Authority to "*recognise the diversity of local government*", councils were given the opportunity of recommending a suggested remuneration appropriate for the responsibilities of each position within the council and its community boards. This process remained in place for successive years till 2012.

4. In 2010 the Authority conducted a review of remuneration of mayors and regional chairs, observing that the time commitment and responsibilities of these roles had grown disproportionately to those of other elected members, particularly since the 2002 Act came into force. Between 2008 and 2011 the negative impact of the Global Financial Crisis on the New Zealand economy was recognised by the Authority in depressing increases in local government remuneration. In the 2011 Determination the factors used by the Authority to

[1] Remuneration Authority Local Government Determination 2003

help assess size were changed to population, expenses and assets. In late 2011 the Authority issued a discussion document [2] outlining possible approaches and issues. This was followed in November 2012 by a further document [3] which presented the system that the Authority was proposing to institute from the 2013 local government election.

5. For a variety of reasons, in the years 2014 to 2016 the Authority did not completely implement the proposed process. However, significant elements are now in place. The key relevant elements of the 2013 proposal, since implemented, were:
    a) Moving away from the traditional salary/meeting fee mix for local government remuneration.
    b) Removing the pool system that allowed councils to recommend allocation of the pool.
    c) Setting a base councillor rate for each council, with councils able to make submissions on additional remuneration for councillors undertaking additional responsibilities, paid out of a limited pool.
    d) Basing the remuneration for councillors/mayors/chairs on:
        - the relative place of the council in the size index (derived from population and council expenditure).
        - the job size of the positions as assessed for sample councils;
        - the proportion of full time work as demonstrated by survey results;
        - the Authority's pay scale.
    e) Basing remuneration for community board members on population.

6. In 2015 the Authority commissioned some work on local government role sizing from the Hay Group and in 2017 it conducted a survey of retiring local government members in an attempt to gain more understanding of work load. In 2017 the Authority issued a Consultation Document[4], looking at both short term and longer-term measures. The Authority noted that it had decided to maintain several key approaches:
    a) Maintaining a "total remuneration" approach rather than meeting fees.
    b) Using a size index to determine relativity between various councils.
    c) Adopting a "pay scale" for local government that is fair and seen to be fair.
    d) Reviewing the components of the council size index every three years and applying appropriate factors to territorial authorities and regional authorities.
    e) Recognising that unitary councils have dual responsibilities and sizing them accordingly.

7. Following input from the local government sector, the Authority issued the 2017 Determination, which updated key areas relating to expense reimbursements and allowances. In particular, we acknowledged the demands on councillors who are members

[2] Remuneration Authority *Review of Local Authorities Setting – Discussion Document (September 2011)*
[3] Remuneration Authority *Remuneration Setting Proposals for Local Authorities – 2013 and Beyond (November 2012)*
[4] Remuneration Authority *Consultation Document (2017)*

of plan hearing panels, an activity which requires a significant amount of time. Our more recent focus has been on remuneration, which is the subject of this paper.

8. In 2017 we were assisted in our initial thinking by a group of senior local government elected members (the Local Government Leadership Group) and we also presented to and had question and answer sessions at the Local Government New Zealand (LGNZ) Zone meetings, except for Zones 1 and 4 which did not respond to our request for meetings. We then conducted three webinars to give individual councillors the opportunity to hear us first hand and have their questions answered, as well as providing feedback on any issues. In 2018 we met with the sector groups of LGNZ and through a survey sought information from all councillors in New Zealand, as well as members of Auckland Local Boards, to give us a snapshot overview of workload. We also had discussions with some of the democratic services staff of some councils.

9. In summary, during this exercise over the past two years the Authority has:
   - Issued a consultation document to local government and received responses from 66 councils/boards, 14 individual elected members, as well as other organisations associated with the local government sector, including LGNZ and the Society of Local Government Managers (SoLGM)
   - Gained initial input from a representative group of local government elected members (the Local Government Leadership Group)
   - Surveyed outgoing councillors
   - Requested information from all current councillors in New Zealand and members of Auckland Local Boards
   - Met with LGNZ zones 2, 3 ,5, and 6
   - Met with sector groups of LGNZ
   - Conducted three webinars for individual councillors
   - Consulted periodically with LGNZ
   - Briefed the Local Government Commission
   - Briefed the Minister of Local Government
   - Briefed the Department of Internal Affairs
   - Met with the democratic services staff of some councils
   - Received assistance from a range of professionals including academics, statisticians and remuneration specialists
   - Researched approaches to local government remuneration in similar jurisdictions (Australia and the UK)

## The Role of Local Government

10. In our 2017 discussion paper on this subject, we quoted from a document[5] issued by LGNZ in 1997. It contained a thoughtful summary of the role of local government and we reproduce the excerpt here again as a summary of the role of this critical sector.

11. The document said:

*"The strength of representative democracy ultimately depends on two factors. One is the level of citizen participation and trust in democratic institutions. The other is the ability and commitment of elected representatives and their role in encouraging participation and promoting levels of trust.*

*Local government constitutes one of the underpinning structures of democratic society, providing 'voice and choice' to citizens and communities, and the mechanism for making decisions about local needs and preferences. It also provides a forum to debate issues of mutual interest and concern.*

*Good local government depends upon the goodwill and understanding of it citizens, and the quality of its staff. Most of all, however, it depends on the ability of those elected to govern. Attracting people with the capacity to lead and govern at local level involves a number of factors. These include:*

- *The opportunity to contribute effectively, be professionally valued and receive a sense of satisfaction at achieving a job well done*
- *The existence of structures and processes to support and professionally advise elected members and enable them to contribute constructively on matters of community importance*
- *The presence of consultative and participative arrangements that strengthen relationships between and with their communities*
- *The existence of a remuneration system that enables people from all sectors of the community to commit time and effort necessary to fulfil their responsibilities as elected members without being unduly disadvantaged."*

12. In our view, this characterisation of local government has not changed since it was written more than two decades ago. What has changed is the scope and breadth of local government responsibilities and how elected members are held to account. This has particularly been the case since the changes introduced in the Local Government Act 2002, which saw local government through a much less prescriptive lens than had been the case in previous policy and legislation. Since then there has been an increasing degree of responsibility moved from central to local government.

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[5] *Options for Setting Elected Members' Remuneration – A Discussion Document for Local Government and Stakeholders* prepared by the Local Government New Zealand Elected Members' Remuneration Working Party (1997)

13. Major changes in the responsibilities of local government between 2006 and 2012 were summarised in a more recent LGNZ paper [6] which discussed what is often referred to amongst councils as "unfunded mandates" passed over from central government. The focus of the paper was cost, which is not per se the major focus of the Remuneration Authority. However, with additional responsibilities come not only extra cost, but also extra work and, in most cases, the requirement for substantially more specialist knowledge and understanding of legal frameworks. It was clear from reading the paper that there was significant additional responsibility and work involved in delivering the extra functions delegated to councils through legislation or regulation during the period it covered.

14. In the six years since then, a wide range of further responsibilities has been added, including statutory requirements around urban development, water quality and Treaty settlement co-governance arrangements. These have impacted on virtually all councils, though in different ways depending on local variables.

15. This trend of devolving work to councils was also noted by the Productivity Commission in its 2013 report [7], which said:

    "*There has been a steady stream of new statutes over the last decade, affecting local government regulatory activities to varying degrees.*

    *Councils making decisions with environmental implications increasingly need access to:*

    - *Technical information and skills in interpreting technical information;*
    - *Methods of modelling uncertain scenarios; and*
    - *Skills in engaging with communities and stakeholders on technical issues."*

16. The Commission went on to say that there is often limited analysis of local government capability or capacity to implement regulations prior to the allocation of additional regulatory functions (or changes to existing functions). Earlier in its report, the Commission quoted both the stakeholder groups of local government and councils themselves on the issue of capability, noting that *"councils – particularly smaller councils operating in rural areas – recognise that they face capability challenges".*[8] The Remuneration Authority took into account these observations in its deliberations. Those capability challenges may be able to be resolved by larger councils, which can afford the specialist staff required - though even in these cases, final decisions are routinely made by councillors. Being the representatives of the community in governance roles, elected memebrs need to be skilled in interpreting and making decisions on complex (often technical or scientific) issues for which they experience the immediacy of local accountability. If a council is small and does not have the financial ability to attract the specialist staff required, this puts incredible stress on its elected

[6] LGNZ *The Impact of Government Policy and Regulations on the Cost of Local Government,* November 2012
[7] New Zealand Productivity Commission *Towards better local regulation* May 2013 p.214
[8] New Zealand Productivity Commission *Towards better local regulation* May 2013 p. 80

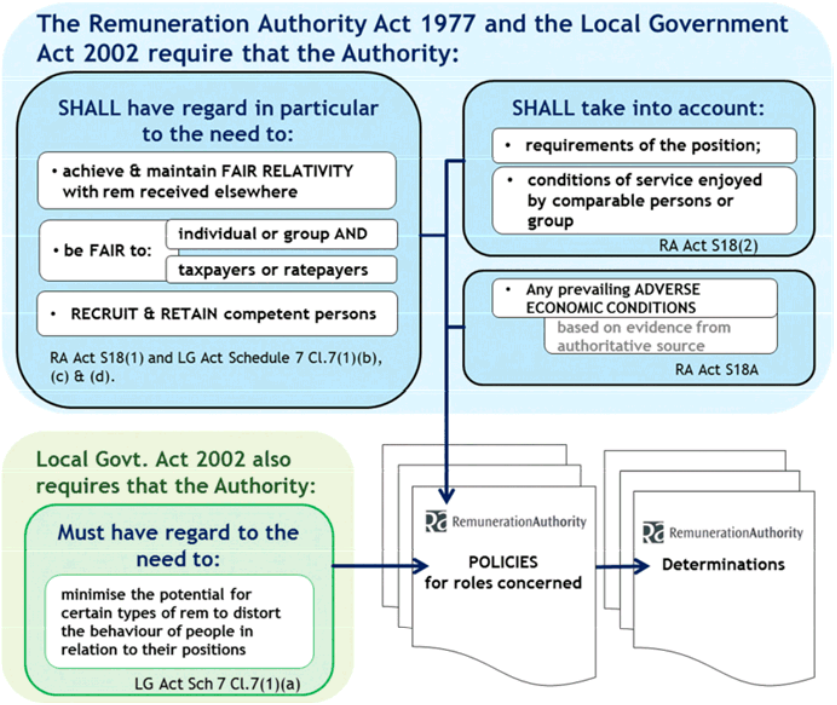
members who, like their colleagues in larger councils, still have to make important decisions but frequently without the benefit of high quality expert advice. Such councils also have little distance between their members and those they represent.

17. In summary, in the 21st century local government elected members not only need time and commitment, but increasingly need to be able to grapple with complex policy issues that will shape our communities for generations. This situation is further exacerbated by modern technology and social media. Elected people are now far more accessible than they have ever been. In New Zealand we have always valued this accessibility and the fact that our politicians are close to and "amongst" the population. From the point of view of an elected member this accessibility means being constantly available.



## Criteria used by the Remuneration Authority

18. The setting of remuneration for elected members is an important part of the support for a robust and healthy representative democracy in New Zealand. The work of the Authority in relation to its local government mandate is covered by two pieces of legislation – the Remuneration Authority Act 1977 and the Local Government Act 2002. The table below sets out the requirements of that legislation. Each of these requirements is then discussed below in the context of local government remuneration.

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19. Our survey of local government elected members elicited many comments from respondents, which were very helpful to us in understanding the pressures they face. We reproduce a sample of the more typical ones below in the relevant sections and elsewhere in this paper.

**"Fair relativity"**

20. For local government, achieving fair relativity with remuneration received elsewhere is challenging. There is no other identical role. We looked at other jurisdictions to see if there were any benchmarks that would assist us. After examining a variety of other roles in New Zealand, we decided that the nearest occupation with similar but not identical characteristics was that of a Member of Parliament. We discuss this later in this paper.

**"Fairness to individual/group"**

21. History would suggest that people do not run for election to local government for money. Most understand that it is not highly paid and that there is a significant degree of "public service" by the individuals concerned. However, the local government environment in New Zealand has changed substantially over time and, especially in the last decade, the role of local government has widened considerably. Many local government representatives give up comparatively well-paid roles to be able to serve on a council and the local government role can inhibit them from gaining other suitable work to "back fill" their council remuneration. It is important that those who are elected are paid fairly, while taking into account the public service nature of the role. In our survey responses, some councillors said they were paid adequately or would do the job for less, but within the majority of responders there was strong congruence on two themes – the job is far bigger than the remuneration, even taking into account public good, and the pay and conditions discouraged many from standing for office.

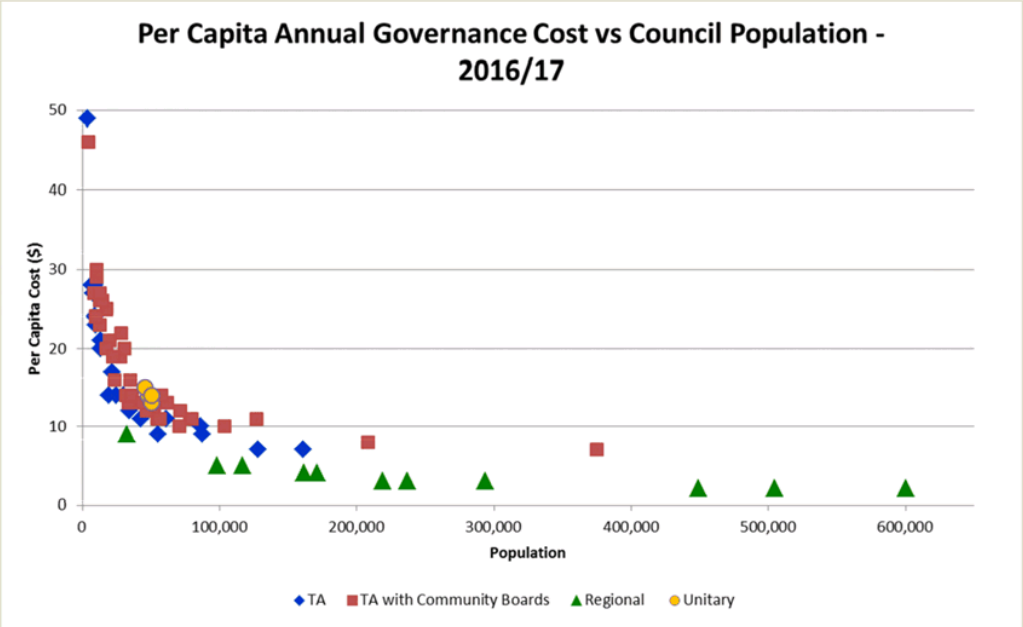
> *"Even allowing for the public good element, it is very low remuneration for the hours spent, the skills required and the contribution to the community".*

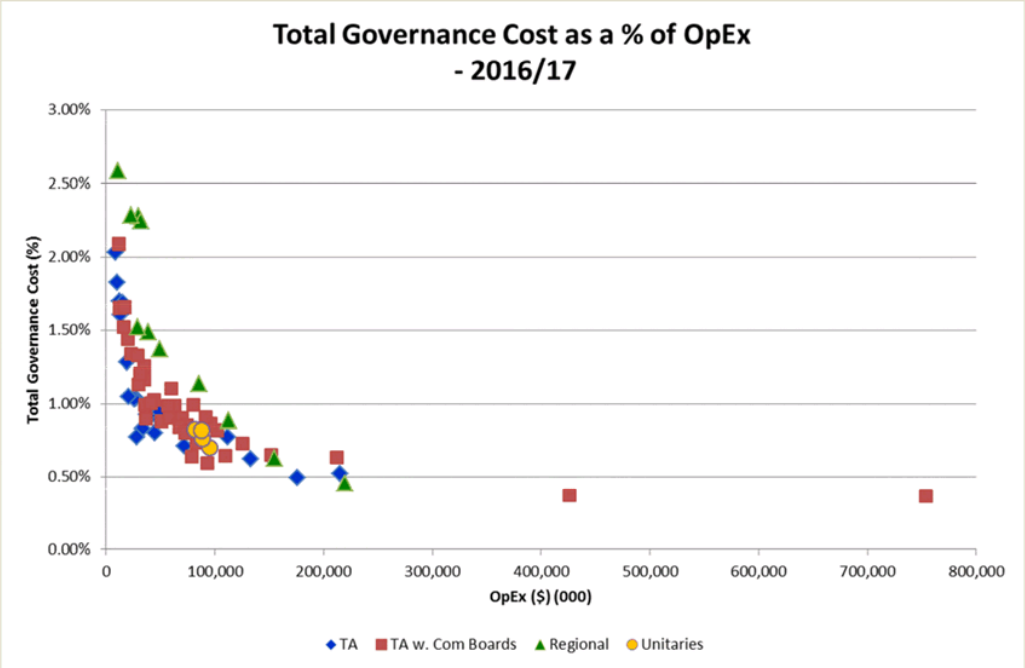
> *"Remuneration is very low at our council, generally requiring councillors to partake in other employment, potentially negating the councillors' efficiency and commitment. However I don't think any of us would consider we participate as councillors for the money, more as a duty to the community."*

**"Fairness to ratepayers"**

22. This provision is a counterbalance to the one above. In metropolitan councils with big populations, the proportion of operational expenditure committed to governance costs - that is, the payment of elected representatives - may be quite small. However, for councils

with a small population and fewer ratepayers, it is likely to be a higher proportion of operational spend. This difference is illustrated by the graphs below.

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23. Albeit that governance costs are far from the biggest expenditure on any council, for smaller councils, with comparatively fewer ratepayers to share the burden, any increases would have a greater impact on their ability to spend on other services for citizens. We have been acutely aware of this during the course of this review. Unsurprisingly, these graphs also show that councils with Community Boards tend to have a higher governance cost than those of councils with similarly-sized populations that do not have Community Boards. Obviously the number of councillors on each council also has an impact.

**"Recruitment and retention of competent people"**

24. This requirement is related to the requirement for fairness to the individual or group so as to enable as wide a pool as possible to consider the role. Although the legislation does not define "competent" the Authority has for some time considered that for local government to represent its communities well, competencies amongst councillors must apply also to the diverse experiences and skills required to make decisions on behalf of those communities. Such diversity (or lack of it) was commented on by a number of survey respondents and would be easily observable in the makeup of many councils. There is a widely-held (and probably accurate) perception that this type of service is difficult for many people who have family or work responsibilities and would find a council role financially challenging.

> *"Although it shouldn't be about money and I am lucky personal circumstances allow me to be an elected member, the current setup might exclude anyone who isn't financially comfortable or can supplement their remuneration with a pension or has a partner who is earning a reasonable wage or has another part time job with flexible hours"*

> *"I am a young person at the peak of my earning potential. I am earning about half as much as I would in my previous role. I think we need more young and middle aged, skilled and energetic councillors. We need to pay people to attract these skills. I struggle to support my family".*

> *"Many councillors like myself see this time on council as more of a community service. There is, however, no doubt that the need to have an alternative source of income is a barrier to wider diversity round the table".*

25. Many elected members need to rely on their partner's income to support their families, frequently at some cost to the family unit.

> *"As a young elected member the financial constraints this puts on my family and I are untenable."*

26. Presumably other potential candidates cannot afford to give up their "day job" and are thus unable to offer their services to the community in this capacity. Many others endeavour to straddle both a representative role and another job in the workforce, often with great difficulty. There were frequent comments in our survey responses about this issue. In particular it was notable that those who were self-employed or who owned businesses found it less difficult to fit in council work, albeit that they paid the price in income loss.

> *"I am absolutely committed to my council work but for hours spent on council matters and because I am representing a low rate paying base council, there is a definite impact on my business."*

> *"I run a small business and the income from Council does not compensate for the additional cost I incur employing additional staff to cover for me when attending to council duties. In all reality, it costs me financially to be a councillor."*

> *"It is very hard to attract young people into the Council as the pay makes it not worthwhile. I'm lucky as I'm self-employed so I can kind of make it work, but if I was employed by a business there is no way I could be involved".*

> *"The remuneration is pretty low for the amount of time spent on the role. But one of the biggest issues is how it impacts on other work roles with meetings, workshops, and other commitments which means I have to juggle my other part time role to fit around council expectations. That can be very difficult, but I need my other work to be able to pay the bills."*

27. It is important that the remuneration level does not discourage diversity in local government. The Authority members understand the need to have wide demographic representation in these decision-making roles – gender, age, race and socio-economic status. Examples of local government leaders (mayors and regional council chairs) earning less than the average wage do not encourage people to see local government as a viable option because of personal financial constraints. In one instance we were told of a deputy mayor earning less than she might have had she been on an unemployment benefit – surely not a great example of the worthwhile nature of local government work.

> *"Two of the three main towns in our district have a deprivation index of 10. But our district has historically been represented more by older, wealthier white men than anyone else. I believe a higher remuneration could encourage diversity and a better and fairer representative of our struggling communities."*

28. Another issue that appears to be of growing concern in local government is that caring for dependents may limit options for some people, particularly younger women who may have child care responsibilities. This is seen by many as a barrier to participation. The Authority is looking at the carer issue and will make a decision prior to the 2019 election. We need to point out, however, that were we to approve councils providing reimbursement for carers, it would be up to each individual council to implement such a decision, as it is with all the allowances and reimbursements included in our local government determinations.

> *"Elected members do need some help with childcare when they need to attend meetings in the evening/weekends".*

29. Remuneration alone cannot address all these issues and obviously there are other determinants of participation. Most of these are beyond our jurisdiction. For example, there appears to have been a move from evening meetings to daytime meetings and possibly this has impacted on the ability of people to hold an outside positon as well as a council role. This is something that has led to a type of "professionalisation" of councillor roles which may not always be appropriate, especially for smaller councils. We acknowledge that this is in direct conflict with the greater requirements to understand complex legal and technical issues that we refer to above. It is but one example of many contradictions in the democratic process of governing our local communities.

**"Minimise potential to distort behaviour"**

30. This requirement was the driver behind the 2013 proposal to replace the traditional meeting fee approach with remuneration for the whole role. The Authority recognises that attending formal council meetings is far from the only requirement for an elected member. Constituency work (including advocacy and now increasing expectation that politicians will

reach out to constituents on social media), council representation and meetings such as workshops are also a part of the basic role. There is also a significant amount of reading, some of it highly technical. In fact, with the increase in responsibilities of councils and the greater need for councillors to make legally binding decisions that are challengeable in court, the actual meeting time is probably less relevant than the preparation time (including workshops) prior to a formal decision being made. We see no reason to change the current approach of a "rate for the job" and few councils have suggested that we should.

**"Requirements of position and conditions of service"**

31. This is a difficult criterion to fulfil because each council is very different. Nevertheless, there are some basics that are shared everywhere – being in the public eye, erratic hours and being "on call" to constituents at all times. These issues drew considerable comment in the survey of elected members. The requirement to "upskill" was also commented on in a number of responses, citing the need to undertake RMA and IOD courses, amongst other training that now appears to be reasonably regular.

> *"Being the sole rep in a large area the role is more like full time than part time. For instance, my ten minute supermarket trips are now 30 mins. My 5-minute pop into town visits are now 30+ mins. I cannot step out the door at any private event without council business dominating a large part of the enquiries I receive. There is no box for day to day community interaction that is such an important part of our role".*

> *"I am a practicing solicitor – remuneration is poor for the work and skills involved."*

32. In the case of mayors and regional council chairs, the Authority has for the last few years considered that those roles are full time or near to full time such that incumbents would find it difficult to find other employment that would allow for the full delivery of the council role. In the case of other elected members, the situation differs considerably between councils. The survey results around time use are discussed in greater detail later.

33. It should be noted in this context that local government elected members are treated for tax purposes as independent contractors rather than wage and salary earners. For example, elected local government representatives are not eligible for the same ACC or Kiwisaver provisions as wage and salary earners. This is an issue that needs to be taken up by local government itself with the relevant central government authorities if local government members believe it is important.

**"Prevailing adverse economic conditions"**

34. The New Zealand economy is performing well, so we consider that there are no current prevailing economic conditions that would encourage us to provide a nil or extremely small increase in remuneration. Conversely, we have noted that the Government's stated objective is to narrow the gap between the highest and lowest paid earners in a fiscally sustainable manner. Local government elected members are certainly not amongst the highest paid. We noted in particular the Prime Minister's comment earlier this year that "the Government is particularly committed to raising pay levels for those on low and middle incomes." On hours worked, many local government members would be in the category of low to middle earners. We see the current relatively strong economic conditions as an opportunity to re-align the local government remuneration system with a comparator group and correct obvious inconsistencies between councils, bearing in mind that there will always be a "public service" factor in elected member remuneration.

## Performance pay and setting remuneration for groups

35. When reaching conclusions about local government remuneration, it is necessary for the Authority to check its decisions against all the above requirements. Given the significant differences in the circumstances of individual councils, this creates some challenges in determining the remuneration of over a thousand individuals across the country. In respect of these differences, we note that, in moving away from the pool system in 2013, the Authority wrote that "over time, the Authority became concerned that the pool arrangement…..was leading to a disparity of remuneration between similar positions in similar sized councils." This is a serious issue which we have looked at carefully. We have concluded that the "disparity of remuneration between similar positions on similar sized councils" is of less consequence than local councils not having the flexibility to meet local needs. The disparity we want to remedy with our future approach is between the total governance costs of councils of similar sizes, rather than the individual roles on different councils. These issues are further discussed in the section on Remuneration of Councillors.

36. The ability of the Authority to determine the remuneration of every individual in a fair way is further complicated by the fact that the Remuneration Authority is not permitted (nor would it be viable) to take account of individual performance in its determinations. This is an issue that appears to be not well understood by the public. Usually at the time of a Remuneration Authority determination for elected people (whether in central or local government) there is some adverse comment in the media about the inappropriateness of the pay rise and, occasionally, how surprising it is that politicians get paid at all. Over the years, successive public opinion polls on trust indicate that politicians generally do not rank highly, yet, ironically, most New Zealanders will speak favourably of some individuals (often people they know) who hold public office. People grizzle about their "useless" councillors. Frequently the same people are unwilling to put themselves forward for election, sometimes for reasons (noted above) around remuneration and time requirements – or because it is a public role that most people recognise will interrupt or take over their private life.

37. Well-performing local government elected members should not be penalised because some others are not up to scratch. Within councils, non-performers are often widely recognised by their peers. However, sometimes it is more difficult for the public to identify them because they may have created a high personal profile in local media, not necessarily by being positive and constructive. We understand how difficult it can be for a council to manage bad behaviour and, although it is beyond our jurisdiction, suggest that the strength and utility of council codes of conduct might be an issue that local government collectively should address through LGNZ. The Remuneration Authority is not able to take account of the quality of personal behaviour or contribution in setting remuneration. The ultimate "employer" – the voting public – makes these decisions every three years.

38. The final comment regarding the role of the Authority is in regard to the judgement that we are required to exercise when setting remuneration. For any of our client groups, if there were an easy way of setting remuneration that simply relied on feeding a formula into a computer and getting a result, there would be no need for an agency such as the Authority. Our legislation directs us to "have regard to" or "take into account" the issues outlined above, but beyond that it is silent. In all of our considerations, there is a high degree of judgement involved. We most certainly endeavour to gather as much data as possible on which to base decisions and, in terms of this local government review, have gone to some lengths to obtain granular information. However, "one doesn't fit all" and there will always be some within any group who feel that they are disadvantaged because of their particular personal circumstances. We have endeavoured to be fair and to be seen to be fair to all groups concerned.

39. Taking into account all the issues outlined above, we have decided to re-introduce a pool approach, but in a simpler way than previously, in that it will not be mixed with meeting fees. The new approach will be implemented when new councils assume office following the 2019 local government election.

## Council Sizing

40. Normally, when sizing a role for remuneration purposes, the methodology takes into account characteristics of the job (including the responsibilities of the role – i.e. budget, management, other accountabilities) and then attributes required by the person filling the role e.g. "know how" (what the individual brings to the role) and problem-solving ability (related to the level or depth of issues to be dealt with). The Authority holds a considerable amount of information about what elected members, including council leaders, are required to do as part of their roles. However, it would be impossible to size every single elected role in each local authority. Thus we have in the first instance focussed on councils and their overall responsibilities, then created a council size index which we have applied to the roles. In the Consultation Document we defined council size as *"the accumulated demands on any council resulting from its accountability for its unique mix of functions, obligations, assets and citizenry"*. As we have progressed, this review it has become even more obvious to us that councils face such varying local conditions and challenges that even similarly populated councils may bear little relationship to one other. Nonetheless, we have endeavoured to

identify measures that provide an overall view of similarities, using characteristics that can be measured.

41. We initially proposed that the following factors should be used to measure the size of the different types of council (territorial, regional and unitary authorities):
    - Population (all councils)
    - Operational expenditure (all councils)
    - Asset size (all councils)
    - Number of guest nights (all councils)
    - Social Deprivation (TAs and unitary authorities only)
    - Land size (regional and unitary)

42. As well as considering the feedback we received, we also undertook detailed assessment of the availability, transparency and utility of various data sets to measure these and other factors that were suggested as appropriate for size indictors. Fundamentally we needed data that was consistent/comparable between all councils, that was from a reliable source and that was publicly available. These requirements eliminated some suggestions (either our proposals or from councils) that at face value were worthwhile exploring. There were many proposals, some quite similar, and others suggested by only one council.

43. In this section we discuss the main factors that we examined, either because they were on our list or because councils suggested them. Many of these potential factors for sizing councils are inter-related, so we have clustered them here under the broad headings of "people", "economy", "finances/assets" and "territorial characteristics".

**People Issues**

44. We will continue to use population as a significant factor for measuring size. Although many councils agreed with this, a minority told us that population made no difference to a council workload and that it should not be a factor used – i.e. all councils are the same "size" because the work is similar and may take the same amount of time. Most disagreed with this and we remain convinced that population is a significant factor. The number of people represented by each elected representative is relevant. This is reflected in the fact that both Parliamentary electorates and council wards are required to be based on population formulae – for council wards "plus or minus 10%" of the population of other wards. We note that in both the UK and Australia, arguably the two jurisdictions most similar to ours, population is a major (in some cases the sole) criterion on which local government remuneration is based.

45. We also received suggestions for variations to simple population. Rate of population change was one that was obviously challenging councils with their planning, so we considered this. Sudden significant increases or reductions can be equally demanding on councils, especially in terms of decisions around long-term investment in and maintenance of infrastructure. The extreme example of this recently was following the Christchurch earthquake series, where Waimakariri and Selwyn councils have had population increases of 19% and 33% since the 2013 census, largely as a result of people moving out of Christchurch. Population is estimated annually by Statistics New Zealand using multiple information sources, which

means there is no need to rely on census data which, if used, could be theoretically up to five years old by the end of a council triennium. We decided to use the annual estimate available immediately prior to the major determination at the beginning of each council triennium, which should pick up significant changes in a relatively short time.

46. There were also suggestions for using population projections rather than retrospective numbers, but we considered this to be too risky. Projections do not always materialise into reality and can be impacted by large natural events or economic shocks either locally, nationally or globally.

47. The use of number of electors or number of ratepayers was also suggested. We were not convinced of the utility of these indicators rather than total population. Even if people are not electors (for example, under-age or unenrolled new residents) or not direct rate-payers (i.e. people in rental accommodation) they are nonetheless constituents of councils and require services and infrastructure.

48. The issue of transient populations was raised by several councils. Transient populations include seasonal workers, students, holiday-house owners and tourists. Although seasonal population variations are more difficult for a council to manage than a stable population, when looking at the different categories we felt that they were likely to be accommodated in properties already covered in the rating system. In considering these we took into account the impact of the presence of these people on a council's services and infrastructure and thus on the council's quantity and cost of delivery. Seasonal workers may live in private rental accommodation (flats/houses/holiday parks) or in accommodation provided by the employer. In all these cases the accommodation units used will be rated at the appropriate level by the local council which, as a consequence, should provide the required infrastructure. Continuous or periodic occupation should not affect the rate level and by implication should contribute towards the infrastructure required for when the buildings are occupied, even if not continuously. Students – generally in a district for longer than seasonal workers - likewise will be in flats or student hostels – properties that are also rated.

49. Holiday home owners are, of course, ratepayers. That means that they are paying rates for local infrastructure and services, even though they may not use them all year round. It is possible that some councils may choose to not provide sufficient infrastructure for the peak season, thereby keeping rates down, but risking infrastructure failure when the population swells to its peak. There have been examples of this. Conversely, building sufficient infrastructure for the peak season is likely to put an extra burden on the local population who live in the area all year round. This is an issue particularly in areas where the economic position of the resident population may be generally lower than that of many of the holiday-home owners. We recognise that this poses issues for councils in those circumstances and have looked at using an offsetting factor - the socioeconomic deprivation index of the generally-resident population, discussed further below.

50. The surge in tourist numbers in recent years has benefitted the national economy and many regional economies but has also spawned a cluster of challenges for local government. Rubbish collection and disposal, provision of toilets and ablution blocks and monitoring camping locations are but a few of the requirements. In particular, the impact of freedom

campers is a vexed issue, though not the only one. In our discussion paper we proposed that we should find some way of measuring tourist impact and suggested that guest night count was an obvious mechanism. Some councils agreed with this and others did not. Some suggested that measuring visitor spend was a more useful mechanism for gauging the impact of visitors. We examined both these in detail.

51. Visitor spend data is gathered by the Ministry of Business, Innovation and Employment (MBIE) through analysis of credit card use and the home base of the card holders. There are various processes in place to try to eliminate commuters, for example, and also to estimate spend at the 25% of New Zealand retailers that are not on the network that provides much of the data for the analysis. However, visitor spend as an indicator does not capture all visitors, especially those who pass through a local area and stop at attractions, using local facilities paid for by councils, but not buying any goods or services in the district. A good example of this is Matamata-Piako where between 500,000 and a million people each year visit Hobbiton, without overnighting, but requiring public toilet facilities. Many of those people will have paid for their entry to Hobbiton while they were somewhere else, so the spend may be attributed to another location.

52. We then turned to the proposal for using visitor bed nights as a measure. Unfortunately, this, too, fails to provide a complete picture because it does not pick up the transient visitors (discussed above) who do not use local accommodation. In any case, those visitors who are captured in this data would generally be staying in commercial accommodation which would be rated appropriately by the council and thus be contributing to the cost of infrastructure and services, which is a significant part of a council responsibility. Recently there has been much media focus on the issue of domestic properties being rented out as short-term accommodation. This too presents difficulties, but it appears that increasingly councils are addressing this by considering the application of a commercial rate to properties listed on sites such as Airbnb and rented out for more than a certain number of nights a year.

53. In summary, we found that using the size of the visitor sector as a sizing factor for councils was difficult because of the measurement anomalies. Towards the end of this review the Government announced its policy on the implementation of a "tourism tax". It is unclear at this stage how this might be implemented and, more relevantly, whether there would be any revenue sharing with local government, which certainly benefits from tourism but also bears a significant proportion of the cost in both money and effort.

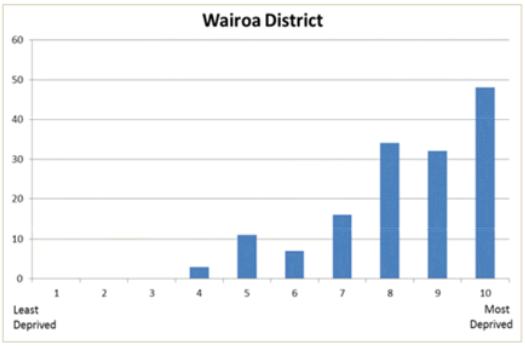
54. There were a number of suggestions that we should use as a sizing factor a council's co-governance responsibilities arising from a Treaty of Waitangi settlement. We considered this carefully, looking at the different manifestations of co-governance round the country. These range from advisory committees for water bodies to full-on joint committees to develop Regional Plans. Co-governance responsibilities are difficult to define in quantity or nature because each one is so different. Nor is there any data source on the impact on the workload of specific councils arising from their co-governance responsibilities. We assume that over the whole country, even if it is manifest differently in different places, local government will ultimately end up as a significant partner with iwi, but at present we are unable to include it as a factor to measure relative size.

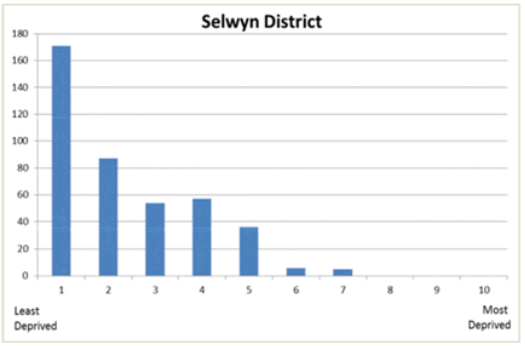
55. There were also suggestions for measuring ethnic diversity, especially the Maori population. We assumed that (aside from co-governance) this was suggested because of the impact on councils of the socio-economic indictors of any population. The adjustment for socio-economic mix is captured in the Otago University Socioeconomic Deprivation Index which we will be using. Similarly, socio-economic or age diversity were also raised as possible criteria. Some councils described these characteristics as heterogeneity. We thought about what aspects of such diversity might cause extra burdens on councils and concluded that those that did were picked up by the deprivation index, which includes factors that drive council delivery in many areas. It captures the socio-economic position of parts of the population, rather than diversity as such, but is a recognised and available index. We have decided to use the Otago University Socioeconomic Deprivation Index because it is currently the one most commonly used and known, although we are aware that the School of Population Health at the University of Auckland has more recently developed a New Zealand Index of Multiple Deprivation as a way of measuring concentrations of deprivation.

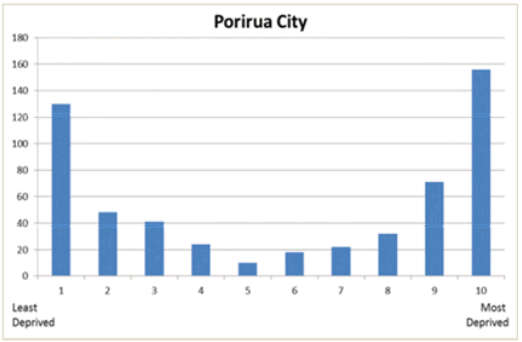
56. The deprivation index is built up from mesh block data collected in each population census and gives a picture of the degree of deprivation in each TA area. Although the data is census-based and hence does not fit in with our proposed three-year timetable, we were told by academics who created the index that, at the level of aggregation we would use, the incremental change in the index in most communities would be relatively stable and thus a reliable picture of the socio-economic status of the community. In any case, we currently have no other way of obtaining this measure which we consider to be important and which people in local government have told us is important to them.

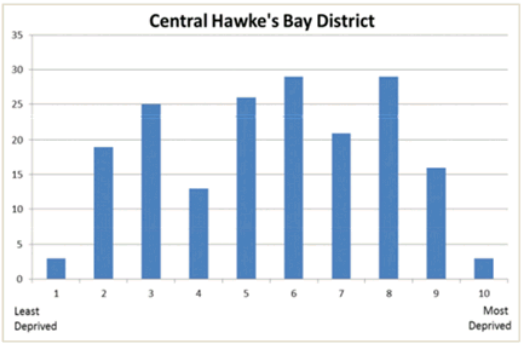
57. The dimensions of the index include characteristics that we consider would be issues for councils when representing and providing for their citizens. They include:
    - Working-age people:
        - on a means-tested benefit
        - with no internet access at home
        - unemployed
        - in a single parent family; or
        - without qualifications
    - Low income households
    - People not living in own home
    - People with no access to a car
    - People with fewer bedrooms than they need

58. Councils with higher proportions of their population in higher socio-economic deprivation bands (8 – 10) will be given a higher weighting. Some councils commented that their wealthier suburbs were more demanding but, acknowledging that wealthier citizens may be better equipped as lobbyists, we still felt that on balance a higher deprivation index was more challenging for councils in terms of overall service provision. The graphs below illustrate the differentials in the Deprivation Indices of some councils and show that there are clear, quantifiable differences. The first pair, Wairoa (population 7,880) and Selwyn (population 44,595) show completely opposite deprivation characteristics. In the second pair, Central Hawkes Bay has a reasonably "normal" distribution of deprivation, whereas Porirua has extremes at either end of the index.



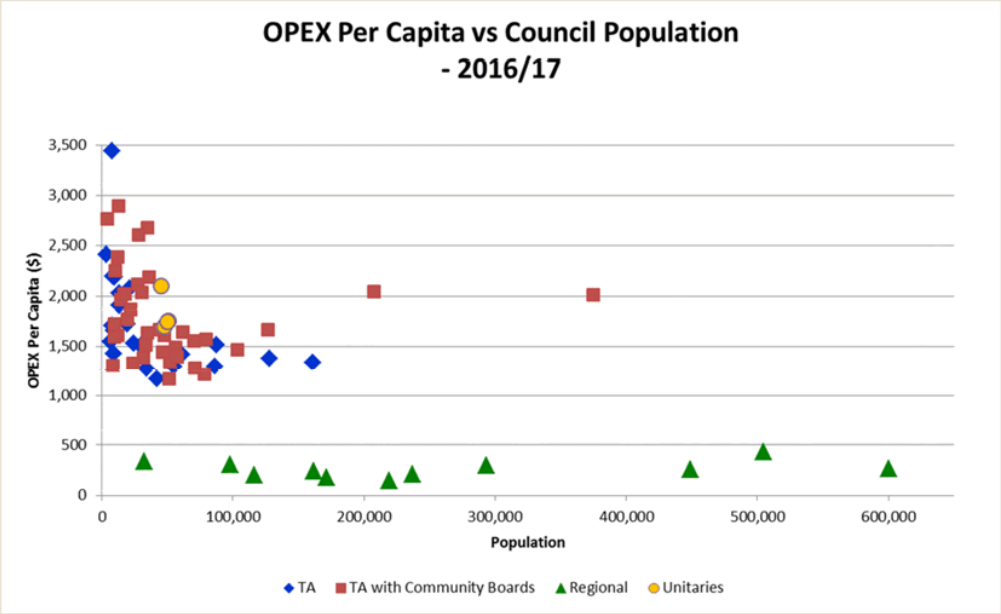

**Economic Issues**

59. Economic growth was proposed as a factor by many councils. On face value it had some attraction, because there are serious challenges and a high degree of acumen required in making judgments on spending on infrastructure for fast-growing communities. It could also be argued that it is even more difficult for councils with the reverse problem: how do you decide what to do about aging infrastructure when your population is rapidly shrinking - and often those remaining are also aging and on fixed incomes? Regardless, regular data on economic growth is available only for regions, not for districts, so this proposal did not meet our criteria of readily available information.

60. We also received suggestions for using the number of rating units or the amount of rateable land within a council boundary. Clearly this type of data is available, but we were not sure what relevance it has, given the huge differences in the types of rating units/properties. For example, major commercial buildings in large metropolitan areas, small suburban residential properties and large farms all generate different types of both income and work for councils and are simply not comparable.

**Financial Issues/Assets**

61. When we looked at financial indicators, we were aware that the operational expenditure of any council to a certain extent reflects population, but is not an exact parallel. Operational expenditure per capita does vary, with smaller councils often spending relatively more per capita than larger ones. The reasons for this revolve round the need for all councils to provide a basic level of services and infrastructure, regardless of population size. The graph below illustrates this.




62. We concluded that the use of operational expenditure as a measurement factor might give smaller councils a small advantage which could offset some of the perceived inequities of using population as a significant factor. In discussing operational expenditure, some councils raised the issue of shared services or contracting out to third parties. Shared services would naturally be included, with the cost to each particular council being measured. In the case of contracting out services, the cost and the ultimate responsibility (as demonstrated from time to time when something goes wrong) both lie with the council, with citizens expecting provision regardless of circumstances.

63. There was wide agreement to use asset value as a factor, though there were also some suggestions for refining the data. Some councils suggested weighting the assets according to various characteristics, e.g. "operational v. investment" or "different asset classes" such as "land v. other". After considering these options, we decided to retain as a measure the total value of assets as reported in Statistic NZ's Local Authority Financial Statistics which are

published annually for the 30 June year. Every council needs to provide an infrastructure platform appropriate for the needs of its district, which means that councils with similar populations may have major differences in the size/scale of their infrastructure. A good example of this is in Wairarapa. South Wairarapa District Council with a population just over 10,000 supports three wastewater treatment plants, but its next-door neighbour, Carterton, with a population of just over nine thousand, has only one. In both these cases there are also holiday home owners not normally resident. Where assets are shared, the value of the council's share will be used. We considered whether we should include assets owned/operated by CCOs on behalf of councils and decided that if the council were the ultimate shareholder, then the ultimate responsibility for the asset remained with the council, regardless of the governance structure. We also considered examples of councils whose investments include full or part ownership of large one-off assets such as ports. These are included.

64. Assets included will be those that are provided by councils to Statistics NZ (i.e. those required under schedule 10 of the Local Government Act 2002). By way of example, assets include:
    - Land (Operational, Restricted and Infrastructural) including playing fields and sports grounds
    - Buildings (operational and restricted)
    - Three waters infrastructure
    - Roads (local share) and council-owned rail assets
    - Social assets such as libraries, collections and playgrounds
    - Parks
    - Maritime assets, including ports/ferries etc.
    - Flood protection infrastructure
    - Footpaths and footbridges
    - Carparks
    - Heritage assets
    - Investment assets.

65. We note that the Government is investigating a possible new model for the delivery of the three waters. If this were to result in the ownership and operation of this infrastructure being removed from local government, then this would obviously impact on the size of councils.

**Territorial Characteristics**

66. Some territorial authorities suggested that land area should be included as a sizing factor for TAs as well as regional councils. There were variations on this, including population "sparsity", geographic spread and remoteness/isolation of communities. For example, in the case of Tasman District, some communities are unable to be accessed by land, so council representatives' travel by water to reach residents. Many councillors round the country have long distances to travel between smaller communities. When we originally suggested land area as a measure for regional and unitary councils, it was as a proxy for their significant land/water regulatory responsibilities. In the case of the TAs who said they should also have that measurement, a number suggested it should be for rural/provincial districts because of the large distances covered and the consequent increase in working time for elected

members. We considered this carefully but concluded on balance that there is no common measure that would give a true picture of the relative difficulties of these circumstances, outside of the travel time requirement for elected representatives. There is already a travel time payment available for all councillors which, together with the car mileage allowance, is intended to compensate for these long-distance journeys on council work. The travel time allowance and the reimbursement of vehicle expenses will both be examined at least every three years to ensure that they remain up to date and fair.

67. We reviewed our own proposal to use land area as a proxy for the regional/unitary regulatory responsibilities and decided it needed to be more exact, in order to capture the water regulation role. We have decided to use the term "geographic size" which covers not only land area but also the extent of water bodies such as lakes, harbours and estuaries, as well as the coastal marine area.



**Public Transport**

68. A further issue for regional and unitary councils was their role in the delivery of public transport. For the large metropolitan-based regions (in particular Auckland and Wellington) this work is a considerable part of their mandate, in Auckland delivered through the Auckland Transport CCO. Having looked at the spread and impact of this work on regional councils, we concluded that this responsibility could be measured by an indicator of public passenger vehicle boarding numbers and have included it as a factor in measuring regional and unitary councils.

**Other Issues**

69. As well as the issues outlined above, councils gave us some very thoughtful comments relating to size measurement which have formed a background to our thinking on both size and the weighting of factors. We looked at all of the issues suggested but for a variety for reasons (usually data measurement availability) were not able to utilise many of them. For example, several councils pointed out that smaller councils have fewer staff and contractor resources to support and advise elected representatives, who consequentially often have to do more work within their communities and carry out more of their own research than do those in well-resourced councils. Some councils also commented on the loss of privacy for councillors in smaller communities – though we note this is a phenomenon also faced by well-known local politicians in larger centres.

70. Waimakariri District Council suggested that we should consider "exceptional circumstances of extended duration – e.g. recovery from natural disaster". We considered this carefully, obviously in the light of the experience of councils impacted by the Christchurch earthquake sequence and, more recently, the Kaikoura earthquake. The issues for us were the scale and the impact of an event. Every year some councils round the country are impacted by various disaster events, especially flooding, which for parts of their population can be equally as catastrophic as a large earthquake. Recent examples include flood damage on the west coast of the South Island, in Edgecumbe and the east coast of the North Island. This raises the issue of scale – what would be the cut-off point? We were unable to decide a formula upon which to base such an assessment. In addition, there is the question of impact – the breadth

of the impact and the duration of the response phase.. Again, there are serious challenges in drawing a line somewhere along the "disaster continuum". We do note that in some cases there are interventions from central government in the form of financial support, for example through the Mayoral Relief Fund or an increase in the Financial Assistance Rate provided for councils by the New Zealand Transport Agency. This type of financial support is critical for both response and recovery, but it does not alleviate the extra work imposed on elected members, which we recognise is sometimes of heroic proportions, especially in the 12 months or so immediately following the event. Following the Christchurch earthquake, Christchurch Community Boards members did get an extra payment for their increased work as a result of the impact of the disaster on their populations. That was an ad hoc decision by the Authority following a request from the Christchurch City Council. We have decided to maintain that "ad hoc" approach for nationally significant disasters, rather than trying to formulate an exact policy to use when regularly sizing councils. This will allow us to tailor our response to fit the circumstances, including the scale of the event and the length of time that any council is in response mode following a disaster.

71. Hamilton City Council wrote that the proposed weighting for TAs does not appropriately capture the scale or complexity of attributes that contribute to the workload of a council and that it may be more helpful to cluster authorities by issues rather than size or "urbanicity". We considered how this might work and again it appeared that the data on which to base our judgement in this case could be elusive and may be seen quite differently by different councils.

**Unitary Councils**

72. In our discussion document we suggested that Unitary Councils could be measured by using the accumulated factors that we agreed for both territorial authorities and regional councils. The thinking behind this was that Unitary Councils had both TA and regional responsibilities and thus should be actually measured for these responsibilities rather than continuing the practice of adding an additional 12.5% across the board, which has been the practice in recent years. We decided to measure the unitary councils using the same characteristics as both TAs and regional councils and then created a scale for the unitary councils

## Size Factors

73. The final list of factors we have decided to use to measure the relative size of councils is as follows:

**Territorial Authorities**

- Population (source = Stats NZ Estimated resident Population at 30 June each year)
- Total operating expenditure (source = Stats NZ Local Authority financial Stats at 30 June each year)
- Total assets (source = Stats NZ Local Authority financial Stats at 30 June each year)
- Socioeconomic deprivation index (source = University of Otago Socioeconomic Deprivation Indices compiled at each census)

**Regional Authorities**

- Population
- Total operating expenditure
- Total assets
- Geographic size (includes land and marine/water area) (source = Stats NZ Geographic Areas)
- Public passenger transport boardings (source = Ministry of Transport Public Transport Passenger Boardings at November each year)

**Unitary Authorities**

- Population
- Total operating expenditure
- Total assets
- Socioeconomic deprivation index
- Geographic size
- Public transport boardings

74. All factors we use will be retrospective but measured at "a point in time" as near as possible to the time of our decision. That means that, except for the Deprivation Index, no data sets should be more than three years old. The data sets are available either from Statistics New Zealand or from the annual reports of councils themselves.

## Standardising Data

75. Because most of the measures (whether assets, population or operational expenditure) have huge size differences and are non-linear we had to standardise them by the usual practice of applying logarithms. This is because the characteristics of the largest councils would have swamped the analytical methodology. Because the variables are of quite different magnitudes, we transformed all of them except the Deprivation Index data by logging the raw data. The measure based on the Deprivation Index was treated differently because it did not have the same exponential form.

## Weighting the Factors

76. The factors alone are not sufficient to generate a size index for councils. The importance and impact of each one in relation to the work of councils is critical. Because of the inherent differences between councils, even a decision on weighting different factors could be seen as advantaging or disadvantaging some councils. We spent considerable time discussing weightings and looked at the initial "intuitive" weightings the Local Government Leadership group had allocated more than a year ago when we first started working on this issue. Ultimately, the weightings we agreed were an informed call by members of the Authority. There is no scientific or statistically demonstrable way of allocating weightings in this instance. It is a matter of judgement informed by extensive consultation with local

authorities and empirical work we have undertaken. This exercise was one of the most challenging parts of our review. We used regression modelling as a means of validating our approach.

77. When we decided on the relative weightings of the factors, we then applied the weights we allocated to each variable to the transformed and scaled information about each council, which gave us consistency. This then gave us a size index which not only identifies the council rank when ordered by size, but also a measure of the magnitude of the differences. This approach was applied to the regional and unitary council indices as well.

78. The order of the Council rankings within the three size indices is attached to this paper as Appendix 1. Clearly the application of these factors has resulted in the movement of councils in relation to where they used to sit in the previous size index.

## A Local Government Pay Scale

79. Our Act requires the Authority to "have regard in particular to the need to achieve and maintain fair relativity with remuneration received elsewhere". In past years this has meant assessing remuneration changes against those of other specified groups. For example, last year we increased remuneration in the sector by 1.7% across the board, reflecting the previous year's increase in public sector remuneration [9].

80. However, we feel that it is not sufficient to simply benchmark regular changes in remuneration in either the public sector or the whole workforce. We wanted to find some consistency between councils (using the council size index) then identify a similar occupation or group of occupations which could provide a demonstrable basis for linkages, as we are legally required to do. In our earlier consultation document, we set out the groups we considered as benchmarks and our conclusions on each of them. For the sake of completeness in this report, we reproduce below the section of the earlier report that dealt with our consideration of a comparator group:

> *The Authority considered and rejected as inappropriate the following:*
>
> *a) Local government senior managers' salaries.*
>
> *Information on local government management remuneration is readily available in market salary surveys and through councils' annual reports. However, employees of councils are selected for the knowledge, skills and experience they hold relative to the needs of the employment role. Elected members do not fit that profile at all. They are democratically chosen by the electors to represent the interests of the people of a particular area and provide governance over the council's operations. There is no logical alignment that would connect the remuneration of the two groups.*

[9] Statistics New Zealand Labour Market Statistics: March 2018 (wage inflation)

b) *Central government sector senior managers' remuneration.*

*Information on public sector management remuneration is readily available in market salary surveys and the State Services Commission's annual reports but this option suffers from exactly the same difficulties as option (a) above.*

c) *Remuneration of directors on boards, including public sector boards, commercial boards and large not-for-profit boards.*

*A significant part of the work of elected members consists of representational activities of one sort or another. Most boards of directors do not have this role. Those that do are often in the not-for-profit or NGO sector and, even there, the nature and time requirements of the representational work, including managing constituency issues, is different. Further, most boards are governing an enterprise that is essentially focused on a single group of goods or services within*

*one industry, whereas councils have a significant array of services that are not necessarily similar in any manner – for example, providing building consents compared to social services.*

*Other aspects of local government elected roles which differ from the above are:*

- *The sheer "visibility" of the people involved, resulting in a lack of privacy. In some cases where the elected person is very high profile or important in a community, or when the community is very small, this is extreme and often their close family members are also impacted by this.*
- *This visibility is associated with the need for publicly elected representatives to "front" on difficult issues. This is less common amongst other boards' members and managers. When something goes wrong on a council the councillors and mayor/chair are held to account by the public, whereas on a board it would normally (though we recognise not always) be the CEO.*
- *The meeting requirements on local government are more onerous than they are in other sectors. The Local Government Official Information and Meetings Act 1987 and public expectation is that meetings will be held in public and that information behind decisions and actions will be readily available.*
- *Finally, and perhaps related to all the above, local government entities hold far more frequent meetings/workshops than do other governance boards and the distinction between governance and management is less clear than it is in most other models.*

*In the light of this, the Authority looked at a possible alignment with parliamentary remuneration for comparative purposes. Even though (as we note above) local government is not an exact match to central government, parliamentarians are also democratically elected to represent sections of the populace, and those who are members of the Government of the day also exercise*

*governance over the public service. Within the parliamentary group there are different levels of remuneration between backbenchers, ministers and some other identifiable roles.*

*Given the obvious difference between central and local government elected members, any remuneration alignment could not be a direct one-on-one relationship. However, the nature of the roles is such that there are also similarities and this is the closest the Authority can find to "fair relativity with remuneration received elsewhere". As in other areas of our work, this decision involved a degree of judgement – there is no exact science here and we would observe that the utility and value of any elected person is in the eye of the beholder.*

*We therefore propose that mayor/chair remuneration be related to that of MPs, but capped so that the highest remuneration for any individual mayor or chair cannot be more than that of a cabinet minister. All other mayor/chair roles would be provided with a relative alignment below that upper limit.*

81. Most councils responding to our consultation document agreed that (taking account of the difference in job sizes) parliamentary remuneration was a useful comparator for local government. Some disagreed, but there were virtually no useable examples of another appropriate comparator. Given our legal obligation to "have regard in particular to the need to achieve and maintain fair relativity with remuneration received elsewhere", we have confirmed our proposal to use the parliamentary salary scale as a comparator for local government, which we stress does not mean that elected councillors would be paid the same as an MP, much less a Minister. We looked at the remuneration of various positions held by MPs. For example, cabinet ministers with portfolios currently get paid $296,007, ministers without portfolio $217,676, under-secretaries $194,374 and party whips $179,713. Backbench MPs are paid $163,961 annually. We decided that it would be inappropriate for any local government elected member to earn more than a cabinet minister, which will thus become the top end comparator for the local government sector.

82. Having applied the weighted factors to all councils and ranked them within the size index, and having decided to use parliamentary salaries as a comparator, we then brought these two decisions together to create a local government pay scale. In doing this, there are a few issues that we have had to address:
    - The largest local government unit in New Zealand by population is Auckland Council and the smallest is the Chatham Islands Council. Because of their extreme sizes, these two outliers have been excluded from the size index to allow us to draw up a sensible and workable scale for the majority of councils.
    - Even within the rest of the group, there is a wide range of population sizes – e.g. for TAs from 375,000 (Christchurch) to 3,740 (Kaikoura). There is also a wide range of sizes within our newly devised index based on the weighted factors identified above.
    - While we have taken Auckland out of the size index because of its sheer scale, we had to consider carefully the current closeness of the remuneration of Auckland

governing body councillors and Christchurch councillors. This needs to be resolved but will take more than one year to do so.

## Remuneration for Mayors and Regional Council Chairs

83. Having settled on an appropriate size for each council, the Authority then decided on an appropriate level of remuneration for the elected leader of that council, using the pay scale we created. We have for some time considered these positions to be full time but the outstanding question in regard to "full time" is what to do in the case of mayors or chairs who are not formally working full time in the role - although even with smaller councils this is a small minority. Overwhelmingly we heard from councils round the country, and we know from our own experience and observation, that being a mayor/regional council chair is all-consuming. The exact hours of formal work in some cases may not constitute 40 hours a week – though in most they are much more. But in all cases the person in the role is "on call" 24 x 7 and the degree of night and weekend work (even at events at which most citizens would be able to relax and enjoy themselves) is hugely intrusive into personal life. It was also pointed out to us that the very few hours of the normal "working day" that mayors/chairs may not be formally in the role leave no opportunity to get any part time job in a practical sense. Some incumbents have their own businesses or farms and it appears from our survey results that they commonly have to pay a third party to fill in for them. One mayor said he was lucky to have a partner who could take over the business – that is not uncommon but for us that begs the question of family choice.

84. When looking at groups to identify a remuneration structure that could appropriately inform our decisions for local government, one such group was local government managers. As noted above, we have not used that group as a formal comparator for our elected members' pay scale but did observe the differences in scale of remuneration. There was a wide span. It is not uncommon for CEOs to earn more than 200% more than the mayor – in one case it was 393%. At the other end of the scale, the minimum differential was 106%, with the average around 175%.

85. We also looked at remuneration paid to other council staff, particularly on smaller councils. In one council, the mayor was earning approximately $7000 more per year than the dog control officer. While recognising that dogs and dog control are a highly political and vexed issue for local government and taking into account the "public service" element in mayoral remuneration, we nonetheless concluded that this differential was somewhat smaller than it should be.

86. Overall, we have formally decided that mayor and regional council chair roles should be remunerated as full time roles according to the rank of the council on the size index.

87. Another issue that we raised in the consultation document and which emerged more strongly in the consultation itself was the high degree of congruence between the work of elected representatives on all councils, regardless of size. Most councils agreed to our proposal that there should be a base remuneration for mayors. We have decided to

proceed with this, with the exception of the Chatham Islands Council. The most obvious way to operationalise this was to translate it into a minimum fulltime salary for a mayor. In order to decide what that should be, we first considered whether the average wage should be a sensible point of reference. The role of a mayor/regional council chair includes key elements not likely to be present in the jobs of other New Zealanders earning the average wage. All mayors/chairs are their council leaders, amongst other things steering big policy decisions through the council and acting as a broker between various interests. In times of emergency, mayors have a critical role to play. A mayor is the "first citizen" - civic leader of her or his community, speaking for the district/city and consulted and informed on many of the big issues, even those not directly within the ambit of the council. A regional council chair is not necessarily considered the first citizen of the wider region (not being elected as chair by the population at large), but nonetheless has a significant role as an opinion leader in that community and will be involved in/informed about many big issues.

88. Given the breadth and importance of these roles to New Zealand's communities, we felt that the average wage was a minimal level for mayor or regional chair remuneration and that, under ordinary circumstances, the salary would be considerably higher. However, taking into account the public service element, the average wage serves as a useful starting point at this time. Our current intention is that, following the 2019 local government election, approximately 1.25 times the average wage will be our base remuneration for mayors/regional chairs. The minimum will be reviewed periodically to decide if the average wage it is still a valid comparator.

**Chatham Islands, Christchurch and Auckland Councils**

89. As noted above, both Auckland and the Chatham Islands councils are so far outside the mainstream in terms of size that we needed to consider them separately. We have positioned the Mayor of Auckland as the highest paid person in local government and have decided that remuneration for this role should not be any higher than that of a Cabinet Minister. It should be noted that the difference in size between Auckland and the next biggest councils – Christchurch City Council and Canterbury Regional Council – is so large that the remuneration differential will not follow our scale. We will be placing the remuneration of the Mayor of Christchurch so that it better reflects a group of parliamentary positions that sit below that of a cabinet minister.

90. The opposite is the case for the Chathams. The estimated population is 640 which is far smaller than any other type of council in New Zealand. As a consequence of this, the Chatham Islands have a tiny ratepayer group. We had to consider our legal requirement to be fair to ratepayers, so have limited remuneration. However, we have decided that the Mayor of the Chatham Islands Council should receive no less than the average wage.

**Total Remuneration Approach**

91. In future the Authority will determine a "total remuneration" amount for each mayor/regional council chair. This means that those who chose to have a council car provided will need to have their paid remuneration adjusted accordingly. Councils will calculate and adjust this, rather than the current practice of coming back to the Authority

on each occasion when a council vehicle is changed. The formula is attached to this paper as Appendix 2 and will be included in each determination. We have also decided that there should be a limit on the value of council-supplied vehicles because residents do not expect to have to support an expensive vehicle for their civic leader. The limit will relate to the actual purchase price, on road costs, other dealer charges and GST paid and will be set out each year in the determination. All current vehicles will be "grand-parented" out. The value applying for vehicles purchased in the 2018/19 year is set out in Appendix 2.

92. Because mayor/chairs will be paid as full-time roles the incumbents will no longer be able to claim a travel time allowance.



## Remuneration for Councillors

### Current Approach

93. The current approach is that the Remuneration Authority allocates basic councillor remuneration for each council and each council then has the opportunity to utilise a pool (twice the "base pay" of one of their councillors) for positions of additional responsibility. Under this approach, councils are not allowed to distribute the whole of the additional amount evenly amongst all councillors. The base pay is currently related to population and operational expenditure, though the relativities between councils have not been reviewed over the last few years. The Authority considers that this approach has severe limitations. For example, many councils find the rules restrictive and it is not uncommon for us to be asked if each councillor can hold a portfolio and the additional remuneration allocation divided up equally. In the past we have not allowed this, but the portfolio approach - and the requests for equal division - are becoming increasingly common. More relevant is the fact that, in its community, each council experiences a unique set of circumstances that require a tailored response in terms of how the council organises itself. For some, a basic councillor payment for most of the councillors with just a few committee chairs may be sufficient. For others, there will be a need to spread the workload and consequent remuneration more evenly.

94. Another area of difference is the number of councillors on each council. Councillor numbers are beyond the influence of the Authority but our work on this remuneration review has thrown the issue into stark relief. The idiosyncratic differences we see now are a legacy of historical circumstances. Issues such as amalgamations and boundary changes, population sparsity or density - and even the presence or absence of activist community groups at particular times - have all contributed to decisions over decades to increase or decrease the number of elected members on any particular council. The biggest council outside of Auckland is Christchurch with 16 councillors, followed by Palmerston North with 15 and a group of others with 14. The smallest number of councillors is six - Mackenzie, Waitomo, Opotiki, Wairoa and West Coast Regional councils. The situation is exemplified in the following chart, which shows an enormous variation in populations represented by councils with a similar number of councillors.

**Councillor Numbers (excl. Mayor) in Comparison to Population**

| Council | Number of Councillors | Estimated Population 30 June 2017 |
|---|---|---|
| Wellington | 14 | 212,700 |
| Hastings | 14 | 49,900 |
| Clutha | 14 | 17,550 |
| Hamilton | 12 | 165,400 |
| Nelson | 12 | 51,400 |
| Hauraki | 12 | 19,850 |

| Council | Number of Councillors | Estimated Population 30 June 2017 |
|---|---|---|
| Tauranga | 10 | 131,500 |
| Waimakariri | 10 | 59,300 |
| Stratford | 10 | 9,420 |
| Thames-Coromandel | 8 | 29,000 |
| Central HB | 8 | 13,850 |
| Kawerau | 8 | 6,940 |

95. As noted earlier in this paper, councils with larger ratepayer bases can more easily absorb higher governance costs than can smaller ones. There is no doubt that in the 21st century, ubiquitous mobile technology, better transport linkages and the mass media have had a homogenising effect. On the other hand, even in cities, local populations pride themselves on the difference between their area and often quite close neighbouring suburbs. Frequently this is accompanied by expectations of having "their" councillor represent them. This diversity enriches our culture and social fabric but the question we faced was whether any group of New Zealanders living in a particular part of the country should pay a significantly higher governance cost than those living in another part of the country with a council of comparable size.

**Creating a Governance Pool**

96. We have concluded that while councils should be able to recognise different circumstances within their boundaries and not be restricted as to remuneration allocation between different roles, the total cost of governance also has to be fair to ratepayers and should be closely related to the council size rather than number of councillors. From the time of the 2019 local government elections, we will be implementing a "governance pool" allocated to each council and aligned with the ranking of the council on our size index. It is important to stress that this will not be a national pool. The governance pool will provide the total amount that can be paid in remuneration to councillors in each individual council (aside from the mayor or regional council chair, whose remuneration will be determined by the Authority). The pool system will also apply to Auckland Local Boards which will have the same requirements as councils for making decisions on the allocation of the pool in each case. At this stage we have made no decision as to the application of the pool to community board members.

97. The governance pool will reflect the ranking of the council within the appropriate size index (TA, unitary or regional). It will not have any relationship to the number of councillors on a council or the number of councillors nation-wide. Thus, if a council wishes to change the number of councillors and the Local Government Commission agrees, the size of the governance pool will not change, it will just have to be shared amongst more or fewer people.

98. During the consultation some suggested to us that since all councillors nationwide have a base set of responsibilities the Authority should set a base remuneration (similar to the approach we are now taking for mayors) – or even that all should be paid exactly the same regardless where their council ranked on the size index. We do not accept that all councillors throughout the country should be on the same remuneration, but we do accept that there should be a base amount, which is discussed later.

99. Each council may allocate its own pool according to its own priorities and circumstances. Roles may include not just "internal" council roles such as deputy mayor, committee chair or portfolio holder, but also other jobs either internal or representing the council on outside groups. There will be four requirements for each council:
    - The whole pool must be utilised. We understand that in any community there will be pressure to "keep rates down" by paying councillors less and we feel it is important that councils are protected from such pressure.
    - The council will need to decide a base remuneration for councillors who have no additional responsibilities. This could be equal to or higher than the base amount set out by the Authority.
    - For any roles with additional remuneration attached, the council will be required to have a formal vote to set out the positions of responsibility and the committee structure, decide who will be undertaking each role and also decide the annual dollar value of remuneration attached to each role, in addition to the basic councillor remuneration.
    - Following its formal decision-making, the council will need to forward its adopted resolutions to the Authority for consideration for inclusion in the determination. A timetable will be available for this.

100. The last requirement not only fulfils the law regarding the setting of local government remuneration but is also a safeguard against the possibility of a rogue council where a majority is tyrannising a minority in terms of remuneration. In our discussion document we proposed that recommendations to the Authority on the council governance pool would need to be agreed by a majority of, say, 75% of the council. It was pointed out to us in the consultation that in the case of a small number of seats on a council this may provide some difficulties. We considered a simple majority without the use of the mayor's or chair's casting vote. However, on reflection, since the mayor and chair remuneration is outside of the pool and therefore the holders of those positions have no personal interest in the remuneration being considered, we have decided that if there is a split in the council on this issue, the mayor or regional council chair may use a casting vote.

101. Nonetheless we acknowledge that there could be an unlikely but possible circumstance where a council is dominated by a strong majority with a very small minority being in some way "penalised" for disagreeing or disputing decisions. The law stipulates that only the Remuneration Authority can decide councillor pay, so each council's views will be forwarded to us as a recommendation. Under normal circumstances we would endorse that recommendation and implement it within the determination. However, if a council proposal appears to be unbalanced, or if a councillor or CE makes a formal request for the Authority to review the proposal, we will act.

**Estimating Hours of Work**

102. The governance pool will reflect the ranking of the council in our size index, but it also needs to reflect other factors. In determining remuneration in a "regular" job, the employer would take into account variables summarised earlier in the paper - the nature of the role, the employee's competence and hours of work. We have outlined the nature of this role and public expectations of elected members. It is for the voters to decide whether an election candidate is competent to undertake the role – the Authority is not an employer. In making a determination, the Authority has to assume that all councillors are competent and are completely fulfilling their duties in the best possible way.

103. In assessing hours of work, we reviewed the information we already held. The research that the Hay Group conducted for the Authority in 2015, interviewing the mayor/chair of 20 territorial and regional authorities, a representative sample of committee chairs, councillors, community board chairs and members, and selected representatives of Auckland Council including the Mayor, Deputy Mayor, committee chairs, local board chairs and members. The Hay Group concluded that average work time per week was around 20 hours. The 2017 retiring councillor survey, which had 75 responses, showed similar results. "Half time" is also the experience in some of the jurisdictions we looked at, though it should be noted that no other system of local government is exactly like that in New Zealand. Earlier this year we undertook a survey of all councillors across New Zealand and all Auckland Local Board members in order to ascertain hours of work in their roles as elected members. 659 councillors and 113 Auckland local board members responded.

104. This is the most comprehensive information that the Authority has had available to it about the hours councillors work in their local government roles. The survey responses showed a huge variation in hours worked not only between councils but also within councils. Some of these differences might be attributed to differences in interpretation of the questions that were asked. For example, we saw from the comments included in the responses that some included all their time on email and social media, while others did not include this at all. Other comments indicated that many respondents had taken a rather narrow view of the questions in terms of constituency work and preparation for meetings. We did expect that the questions were sufficiently broad to pick up all work, so, taking into account the comments, have assumed that quite a few respondents did not report all facets of their council work. We also note that many respondents commented on the "lumpy" nature of the work and the fact that the cycle which we asked them to review included Easter break. We have taken this into account.

> *"The other activity you didn't include in time spent was keeping constituents informed on social media and answering emails – that's probably another 50 – 60 hours per month".*

105. As well as reporting on their time use in the survey answers, other issues raised in comments included the following:

- **24/7 Availability:** There is no doubt that the advent of digital communications, in particular social media, has had a major impact on local government just as it has on society in general. A very common comment was around the fact that councillors are now expected to be available 24/7, even if just to rapidly answer emails. The comments that accompanied the survey responses frequently raised this issue.

> *"Being a councillor is a fulltime commitment to service, in that no matter where I go in my community I am likely to be approached by community members wanting to talk about some aspect of Council rates, roads or services. I expect and am happy to give my time and attention to these residents. In addition, I willingly take phone calls from residents at times that suit them – at all hours of the day and night. I also receive many invitations to attend events across my very geographically spread ward. While these events are lovely and it is a privilege to be invited, they do take up much personal/weekend/public holiday/family time. All of this needs to be acknowledged as relevant to our remuneration level".*

- **Time between meetings:** This issue was raised frequently. Clearly it is not an issue over which the Authority has any control, but the scheduling of meetings can increase the time requirement for councillors if there are long periods of down time between meetings on the same day. It is difficult to anticipate how long debate will continue, but (as is not uncommon in board meetings) agendas can be structured so that the important issues are considered early, allowing an estimation of finish time. If there is another meeting scheduled to follow, perhaps with a small refreshment break, that in itself provides a discipline on participants to finish on time. This is not just a matter of efficiency for its own sake. It impacts in a significant way on councillors who have external jobs and can be a source of conflict when they cannot reliably schedule other work.

> *"Because the diary is changed so regularly and often additional meetings or workshops are scheduled in on the days or weeks we should be free, it's virtually impossible for me to make other commitments – work, family or out of (the district)".*

- **Travel Time:** Many clearly misunderstood why we did not ask specifically for travel time to be included in the survey response. There are already provisions for councils to pay travel time and vehicle cost reimbursement, but it is obvious that in some instances councils are not paying either cost reimbursements or travel time allowances (or both). The determination in this respect is enabling so councils may choose whether or not to use these provisions. We suggest that councils should conduct an assessment of the travel time of their councillors and, particularly in rural and provincial areas where there are long distances to be covered, should consider making these payments. We will review this in the next year. We consider that the current travel time allowance is sufficient on an hourly basis and it is unlikely to be increased in the near future. Vehicle cost reimbursement is tied to the policies of the IRD.

106. A related issue that drew many comments was the difficulty of ensuring diversity of representation under prevailing work/time/remuneration conditions. We reported some of these comments earlier because we think they give a flavour of the passion and conviction that we observed amongst many elected members and the need for change to encourage a more representative group of people in local government. Remuneration that recognises the extent of the role is part of this solution to this.

**Assumptions about Councillor Time Use**

107. Despite some (expected) inconsistencies, the survey data and associated comments nevertheless showed some trends that we were able to use as a basis for assumptions about councillor time use in relation to council size. It was evident that in the large "metro" councils (Christchurch, Wellington, Hamilton, Tauranga and Dunedin) a councillor is likely to work up to full time – i.e. one full time equivalent (FTE). There is a second group of councils where councillor workloads sit between full time and half time, with the workload of members of the remainder of councils generally varying around or below .5% of an FTE. It must be stressed, however, that the survey returns showed that both between and within councils, work time differs, even allowing for different roles such as deputy mayor or committee chair. Many work more than a full-time job in their council role, while others apparently put in minimal effort. However, the overall pattern was sufficient for us to use as a basis for decisions.

**Other Variables**

108. Having collected information on council rankings on the size index and the time basis for the job, we were then confronted with two other variables that distorted some of our results and impacted the concept of a governance pool – the number of councillors on a local authority and whether a council has community boards. Our approach to setting a "total cost of governance", irrespective of the number of members of any council, is outlined above. The law provides for TAs and unitary authorities to have a minimum of six councillors and a maximum of 30, including the mayor. Regional councils need to have between six and 14 members. The average number across all TAs is 10 councillors and across regional councils is also 10 councillors. Just as councillor time varies roughly

according to the size of the council, so there is an approximate trend in councillor numbers – also with exceptions.

**Conclusions Regarding Councillor Remuneration**

109. Because of the variations, we decided that (with a few exceptions outlined below) we are unable to take into account the number of councillors on any council and have placed each council on the pay scale by using its overall ranking in the size index combined with average approximate hours worked for councils of similar ranking. We have used Christchurch (the largest council excluding Auckland) to anchor the top of our pay scale. We have anchored the bottom of the councillor pay scale in relation to a proportion of the average wage.

110. For those councils at the bottom end of our size index, we have taken on board feedback received during our consultation suggesting that there is a "basic job" for any councillor, no matter how small the council size. Our current intention is that when the governance pool approach is fully implemented following the 2019 local government election we will, in the first instance, relate the lowest councillor remuneration to a half time equivalent of about two thirds of the average wage. In the case of the smallest councils this will breach our "governance pool" approach and means that the pool for each of those councils will need to reflect the current number of councillors, rather than the ranking of the council on the size index. We note that of the 13 councils impacted, one has 14 councillors, but the average number of members of the remaining 12 councils is between eight and nine. This approach will not apply to remuneration for the Chatham Islands Council which will continue to be determined on a judgement basis.

111. We will begin the adjustments in the 2018/19 Determination and have completed the transition following the 2019 election.

112. In making these changes we are conscious of the effect that the new council size rankings will have on remuneration of individual councils, including:
    - Not all local government remuneration will increase as a result of these changes. In some cases, there will be little change because we have assessed the council pool to be at the right level for the ranking of the council on the index.
    - Because of the impact of the pool approach, in some cases where there are increases members of councils with a high number of councillors (e.g. 14 – 16) will get relatively smaller remuneration increases compared with councils of similar ranking on the size index but with fewer councillors.
    - Elected members of Taranaki Regional Council will not receive an increase in 2018/19 because they are currently paid more than they would be according to their ranking on the new regional council size index. The same applies to Christchurch City Councillors who will not receive an increase this year while we begin the adjustment of other councils on the TA index, which has Christchurch sitting at the top. In the next twelve months we will also be looking more carefully at their relativity with Auckland. Ironically, the presence of the deprivation index in our size measures lifts remuneration in areas where the ratepayers may find it least affordable. In some cases we have

moderated the increases to take account of affordability, as required under our legislation.

113. The impact of differing numbers of councillors on relative total governance pools will be actively considered by the Authority in future years when deciding local government remuneration.

**Chatham Islands Councillors**

114. Each year the Authority will make an informed judgement on the adjustment for Chatham Island councillors.

**Auckland Governing Body Councillors**

115. In Auckland the councillor roles are full time and there are 20 councillors. The next largest council is Christchurch, but the size of Auckland is vastly different, as is the mandate, with Auckland being a unitary council. Basically Auckland has hit the "ceiling" in our local government pay scale. In addition, the delegations that the Auckland Council gives to the Auckland Local Boards are changing in this financial year, which presumably will result in changed workloads. We have set the salary of the Auckland Mayor and in 2018/19 we will make an adjustment for governing body councillors that relates to the rise in the Mayor's remuneration. Thereafter we will create a pool for Auckland councillors that takes into account the size of the council, including the impact of the proposed changes in delegations to Local Boards.

**Auckland Local Board Members**

116. Auckland's 21 Local Boards were set up in 2010 as part of the re-organisation of Auckland local government arrangements following the report of the Royal Commission on Auckland Governance. The remuneration was set by the Authority at that time. The statutory powers of Local Boards were set out in the legislation [10] that created the Auckland Council and those powers are more extensive than those applying to community boards, but less extensive than those applying to councils, which have the power of general competence. Also, with the exception of the Waiheke and Great Barrier Island boards, their populations are in the top half of TA populations. The local boards (comprising 149 local board members) have a significant and wide-ranging role and, for some purposes, are considered to be local authorities.

117. The Auckland Council's Governing Body focuses on regional issues and the local boards on their local areas. They are not committees of the Auckland Council's Governing Body, but are fully accountable for the decisions they make. Local boards also have a key advocacy role in regional decisions and policies. The extent of the local board governance role is reflected in the annual budget. For the 2017/2018 financial year, the combined annual operating budget of local boards is $287,444,000. The combined capital budget is

[10] Part 2 of the Local Government (Auckland Council) Act 2009

$172,888,000. The scope of decision-making responsibilities of local boards is significant and wide-ranging. In addition to their statutory responsibilities to develop local board plans and local board agreements and to engage with their communities, local boards have decision-making responsibility for the non-regulatory local decisions about:

- planning and place-shaping
- maintenance and improvements to street environments and town centres
- business area planning
- arts and culture facilities and initiatives
- community development and facilities
- events
- libraries
- recreation and sports facilities and initiatives
- parks
- environmental management.

118. Local boards also have decision-making responsibilities for non-regulatory local decisions on fees and charges, service specifications, procurement and asset renewal. They can propose local bylaws and local targeted rates and they work with council-controlled organisations on services the CCOs provide in the local board area. As with councils, there is a base level of work and activities that all local boards have to undertake, regardless of budget or population size.

119. The Governance Framework Review that Auckland Council undertook in the last couple of years found that local boards are not sufficiently empowered to deliver on their responsibilities. As a result, local boards have now been delegated powers to manage land under the Local Government Act 2002 and to dispose of local service property and reinvest sale proceeds according to Council policy. Boards also have been given reasonably full discretion to prioritise all renewals funding in relation to all council assets in their area. Further changes are being discussed for implementation in the forthcoming year.

120. Because the Authority does not have certainty around these proposed changes, we are not at present in a position to decide how to size Auckland Local Boards or to construct a pay scale for them, though we do intend to do so in the 2018/19 year. In terms of quantifying work time, our survey response rate from elected members in Auckland, including members of Auckland Boards, was slightly less than the response from the rest of the country. This did not assist in assessing time requirements, but we are conscious of the workload of the Deputy Chairs of Auckland Local Boards and will recognise this in the 2018/19 determination by increasing their remuneration to 60% of that of board chairs, regardless of not having yet developed a pay scale. In the immediate future, remuneration for members of Auckland Local boards will be adjusted to reflect the public sector increase in the last year. We will be engaging in a detailed discussion with Local Boards and the Auckland Council in the near future, with a view to revisiting all their remuneration in the July 1 2019 determination. By then we assume more delegations will have taken place and we will thus be in a position to develop an appropriate pay scale. We also intend to implement a pool system for Auckland at the same time as for the rest of the country.

There will be a pool for the Governing Body (the Council) and a separate one for each of the Local Boards, which will make its own decision regarding allocation of its pool.

**Unitary and Regional Councillors**

121. Our approach to councillor remuneration for unitary and regional councils was slightly different because the sample sizes of these two groups were limited. For regional councils, there was also a large variation in councillor numbers, between six and 13 (not counting the chair). We have therefore related unitary and regional councillor remuneration changes to the changes in the remuneration of the chair of each council, which is set out above. We also then looked at the relativity between the three groups (TAs, unitary council and regional councils) to assess that there was a fair fit amongst all three pay scales.

## Community Board Members

122. Forty TAs and unitary councils have community boards. The circumstances that have led to councils of the same size having different numbers of councillors are in some cases similar to those that have led to the apparently random formation of community boards. Frequently community boards were set up in 1989 when smaller local government units were being amalgamated and the communities that previously had their own council were given a community board instead. Other councils set up community boards in response to the 1989 legislation which required councils with a population over 20,000 to establish them. This requirement was abolished two years later. Even within a single local authority boundary, some communities now have their own community boards and some do not. Although all councils have the same legal opportunity to delegate functions to community boards, there are many variations in their levels of delegation, with most having very little decision-making power. According to Hammond and Hammond in their recent survey of community boards [11] *"…the trend is for community boards to advise their local councils, rather than exercise executive power themselves. The only area community boards consistently have decision-making powers in is the administration of community grants"*.

123. In our discussion paper we asked councils to tell us if they thought that community board members should be paid out of the same pool as councils. Most of the councils that responded to the survey and that do not have community boards gave us no opinion. Of those that do have community boards, and who gave an opinion, there was an equal split as to whether community board members remuneration should come out of the council pool. In some instances, we have been given informal views of community boards from council leaders that do not correspond with the formal positions of councils. We note that there has been a 30% decline in the number of community boards in the last decade. We have considered carefully the fairness of the fact that local authorities with community boards tend to have a higher cost of governance than those without them - yet presumably

[11] Callum Hammond and David Hammond *Serving New Zealand? A 2018 Survey of Community Boards*, p.10

the volume of work is the same, just spread out amongst more people. Clearly many of the hundreds of community board members work extremely hard and with great commitment to their communities. However, in view of the flimsy evidence available about the utility or otherwise of community boards, we have decided that until such time as there is an overall review of their role, community board members will have remuneration adjusted annually by a maximum of the increase in public sector pay the previous year. If councils with community boards wish to increase the remuneration of their community board members, they will need to take the money out of the council governance pool. However, they will not be able to decrease the remuneration level of community board members. Chairs of community boards will continue to receive twice the remuneration of other community board members. Councils will be able to decide whether or not to give extra remuneration to any councillors serving on community boards, as part of their package of recommendations to the Authority.

## Timing of Implementation

124. The Authority intends to review the ranking of each council on the size index every three years. At the beginning of each election year we will issue a list showing the new governance pool we propose for each council (NB this is not a national pool), to be implemented by the new council immediately following the next election. This timing will allow existing councils to assess changes and make recommendations for remuneration based on the size of the pool available, well before the election at which they will be implemented. People considering running for office will have this information prior to the election. Even though they will not know exactly which "job" they may have on a council in terms of portfolio holder or committee chair, for example, they will have an indication of the remuneration they could expect if elected as a councillor without any additional responsibilities.

125. We will expect each council to submit a proposal in the first part of the calendar year in which the election is scheduled and we will issue a determination in the middle of that year which will have two parts: Part One for the period from July 1 till the day on which the new council assumes office, and Part Two for implementation when the new council takes office following the election. When the new council takes office, all councillors (except the mayor) will receive the base councillor remuneration set out in Part One of that year's Determination. For positions of responsibility (including the subsequently elected chair of a regional council), the remuneration will apply from the date the new council makes its formal decision on roles. If newly elected councils wish to change the proposal they will have a window of three months following the election to do so and submit the proposed changes to us for incorporation into a determination that will be backdated to the date the new council made its formal decision on roles and appointments.

126. In the years between the assessments of the "governance pool", all local government elected member remuneration will be changed on an annual basis using the same public sector equivalent formula that the Authority utilises for parliamentary remuneration.

127. All of the changes to the remuneration outlined above will be phased in over the next two determinations – 2018/19 and 2019/20 - not necessarily in equal tranches.

128. In 2018/19 the Determination will introduce the first of three steps towards re-aligning councils to their new ranking on the size index. The following will occur:
    - With the exception of Auckland, all mayors and regional council chairs will have remuneration changed (or in the case of Taranaki Regional Council, maintained) according to their council ranking on the size index.
    - With the exception of Auckland Council, Chatham Islands Council, Christchurch City Council and Taranaki Regional Council, all councillors on TAs, unitary and regional authorities will receive the higher of either a 1.5% increase or approximately 25% of the figure we are currently considering for their council pool following the 2019 election. The 2018/19 figures will be contained in the 2018/19 Determination as dollar amounts, but the proposed 2019/20 pools will not be advised to councils until later this year. It should be noted that the currently assessed pools may change for 2019/20 if there are significant changes in the New Zealand economy or other outside stresses that require consideration.
    - The Auckland Mayor and Governing Body councillors will receive an increase of 2%.
    - Auckland Local Board members and chairs will receive an increase of 1.5%, pending the outcome of further review in 2018/19.
    - Remuneration for deputy chairs of Auckland Local Boards will increase to 60% of their respective chair's remuneration.
    - Chatham Islands Councillors will receive an increase of 2.5%.
    - Members and chairs of community boards will receive an increase of 1.5%.

129. By early in the calendar year 2019 councils will have been advised of the governance pool that they will be allocated following the 2019 local government election. They will be asked by the Authority to provide a formal response outlining how the pool will be allocated to individual roles within their council following the 2019 election.

130. In the determination to be implemented on 1 July 2019 the following will occur:

    - Part One (applying until the new council assumes office following the election) will give similar (though not necessarily identical) rises to those in 2018/19, except that the remuneration of Auckland Local Board members and Auckland councillors may be adjusted to take account of variations in responsibilities.

    - The Authority has not yet any proposal for community board remuneration in either part One or Part Two of the 2019/20 determination.

    - Part Two (introducing the governance pool following the 2019 local government election) will apply the whole new governance pool for each council/local board, including the process requirements outlined in this paper. These requirements will be communicated formally to councils during 2018.

    - New councils elected in 2019 will have the opportunity to amend proposals submitted to the Authority by the outgoing councils.

# Appendix 1: Size Indices Rankings

| Ranking | Territorial Authority |
|---|---|
| 1 | Christchurch |
| 2 | Wellington |
| 3 | Hamilton |
| 4 | Dunedin |
| 5 | Tauranga |
| 6 | Hutt |
| 7 | Whangarei |
| 8 | Far North |
| 9 | Hastings |
| 10 | Palmerston North |
| 11 | New Plymouth |
| 12 | Rotorua |
| 13 | Waikato |
| 14 | Napier |
| 15 | Porirua |
| 16 | Whanganui |
| 17 | Invercargill |
| 18 | Kapiti Coast |
| 19 | Waimakariri |
| 20 | Selwyn |
| 21 | Western BOP |
| 22 | Waipa |
| 23 | Taupo |
| 24 | Whakatane |
| 25 | Timaru |
| 26 | Thames-Coromandel |
| 27 | Horowhenua |
| 28 | Queenstown Lakes |
| 29 | Upper Hutt |
| 30 | South Taranaki |
| 31 | Southland |
| 32 | Matamata-Piako |
| 33 | Masterton |
| 34 | Ashburton |
| 35 | Manawatu |
| 36 | South Waikato |
| 37 | Kaipara |
| 38 | Hauraki |
| 39 | Waitaki |
| 40 | Tararua |

| Ranking | Territorial Authority |
|---|---|
| 41 | Clutha |
| 42 | Ruapehu |
| 43 | Central Otago |
| 44 | Rangitikei |
| 45 | Central HB |
| 46 | Hurunui |
| 47 | Grey |
| 48 | Wairoa |
| 49 | Gore |
| 50 | Opotiki |
| 51 | Waitomo |
| 52 | Buller |
| 53 | Kawerau |
| 54 | South Wairarapa |
| 55 | Otorohanga |
| 56 | Westland |
| 57 | Stratford |
| 58 | Waimate |
| 59 | Carterton |
| 60 | Mackenzie |
| 61 | Kaikoura |

| Ranking | Unitary Authority |
|---|---|
| 1 | Auckland |
| 2 | Gisborne |
| 3 | Tasman |
| 4 | Nelson |
| 5 | Marlborough |
| 6 | Chatham Islands |

| Ranking | Regional Authority |
|---|---|
| 1 | Canterbury Regional |
| 2 | Wellington Regional |
| 3 | Waikato Regional |
| 4 | Otago Regional |
| 5 | BOP Regional |
| 6 | Manawatu-Wanganui Regional |
| 7 | Hawkes Bay Regional |
| 8 | Northland Regional |
| 9 | Southland Regional |
| 10 | Taranaki Regional |
| 11 | West Coast Regional |

**Appendix 2 – Provision of Motor Vehicle for Mayor and Regional Chair**

A local authority **may** decide to provide its mayor or regional chair with a motor vehicle after taking into account what is the **most cost effective option** for the local authority and their ratepayers. The options are the provision of a motor vehicle to undertake local authority business or the ability for the mayor/regional chair to claim a vehicle mileage allowance for costs associated with local authority business.

The **maximum purchase price** that will apply in the 2018/19 year for a local authority provided motor vehicle is:

- **Petrol/Diesel = $55,000** (including on-road costs, dealer charges and GST paid)
- **Electric/Hybrid = $65,000** (including on-road costs, dealer charges and GST paid)

If the mayor or regional chair is provided with a vehicle, the local authority **must** deduct from the annual remuneration of the mayor or regional chair the appropriate amount calculated in accordance with the one of the following formula:

a) **Full Private Use**

**V x 41% x 20%** eg: $42,800 x 41% x 20% = $3,510

b) **Partial Private Use** – if a smaller usage is claim. This must be supported by a log book.

**V x 41% x 10%** eg: $42,800 x 41% x 10% = $1,755

*Note an amount less than 10% for partial private use is no longer applicable.*

c) **Restricted Private Use** - ie: no personal use. The motor vehicle is driven home and garaged by the mayor or regional chair overnight. The motor vehicle is available to be used by other local authority staff when not being used, on local authority business, by the mayor/regional chair. This option must be supported by a log book.

**No deduction from annual remuneration**

Where:

- **V** = actual purchase price, on-road costs, dealer charges and GST paid
- **41%** = assessed annual value of motor vehicle
- **20%** = assessed as full private use
- **10%** = assessed as a lessor amount of private use which must be supported by a log book

For example:

| | A | B | C |
|---|---|---|---|
| Annual Remuneration as shown in either schedule 1 or schedule 2 | $85,220 | $85,220 | $85,220 |
| Motor Vehicle Deduction | $3,510 | $1,755 | $0 |
| Salary | $81,710 | $83,465 | $85,220 |

The deduction from the mayor or regional chair's annual remuneration is effective from the date that they are provided with the motor vehicle.

Vehicle mileage for the use of a private car by the mayor or regional chair cannot be claimed if a local authority motor vehicle is provided.

The above policy will apply to all new or replacement motor vehicles from 1 July 2018.

All existing arrangements associated with current motor vehicles provided to individual mayors and regional chairs are "grandparented". However, local authorities will need to commence appropriate deductions from their mayors/regional chairs annual remuneration from 1 July 2018, using the formula and assessed usage contained in the completed vehicle information forms that were previously provided to the Remuneration Authority.

Karen Brookes,

11 Waitapu Road,

Takaka 7110

Ph: 03 525 8874

kabro@kinect.co.nz

Hi Sue Brown and Paul Sangster, Councillors for Golden Bay.

I'm writing to make it quite clear to you that for you to vote for the Waimea dam to go ahead would be very much against my wishes.

The dam is unnecessary, as Richmond waters are drawn from alluvial aquifers, not the river.

The audacity of making gagged ratepayers support much of the cost is clearly undemocratic.

Especially as the dam is clearly not needed and will bring us all into many years of debt.

The ones who might gain by it are the Industrial irrigators. But it's not the right of Council to support businesses. In fact it is against the law.

So don't line the district up for the impoverishment that the dam would bring.

Vote no when the time comes.

Yours faithfully

Karen Brookes.

**Emma Gee**

**From:** Grant Knowles <tribulldrums@xtra.co.nz>
**Sent:** Monday, 9 July 2018 9:48 a.m.
**To:** Emma Gee
**Subject:** FW: Golden Bay Local Board

This is the letter that came in last week to us all and so I think it should be in late correspondence
Grant

**From:** Tony Lawton [mailto:tflawton99@gmail.com]
**Sent:** Tuesday, 3 July 2018 3:05 PM
**To:** paul.sangster@tasman.govt.nz; sue.brown@tasman.govt.nz
**Cc:** Abbie Langford; averill grant; tribulldrums@xtra.co.nz; dgowland@xtra.co.nz
**Subject:** Golden Bay Local Board

Dear Paul and Sue,

A group of GB locals are assessing how Golden Bay as a community can move towards a higher level of autonomy in our local government decision making on local issues. Obviously the grandstand is one example (but just one in a long series) where perhaps its fair to say a local decision making body may have been able to make a more efficient decision than the process which has just occurred.

There is facility within the LGA (s.52(f)) for TDC to delegate to the GBCB in this respect. However, the LGC have confirmed it has no legislative authority to enforce or govern any such delegation i.r.o. an established community board. Any delegations under s.52(f) are at the discretion of TDC and can be withdrawn at any time. Perhaps more importantly, there is no control framework for this type of delegation under which the CB could engage with its community nor efficiency resolve disputes with the territorial authority.

However this is not to say this approach is without merit, and we do appreciate that in other jurisdictions CB's have historically operated effectively with greater delegated responsibilities than in GB. But it would require, we believe, a significant change in the current GB/TDC political relation in order to achieve the desired community outcomes, and we question whether this is practically achievable.

Under the LGA there is an alternative arrangement for local decision making called a local board. Certain agreed local decision-making non-regulatory areas are allocated (legally this is very distinct from delegated) by the LGC (under an LGA Reorganisation) to an elected local board, who then have final decision making powers over these certain local areas of responsibility. If implemented, this board would replace our community board.

The important difference between a LB & a CB is that the LB makes decisions on certain local areas of responsibly permanently allocated to it by the LGC under an established governance framework, which includes 3-year and annual plans produced via a community consultation process. There are considered reasons for the LGC to prefer distinct communities to seek greater autonomy under this approach than via s.52, and the desired community outcomes from such a change have a far higher chance of being attained.

A local board does not necessarily have an impact on the Tasman/Golden Bay ward councilor setup.

Our group (Working Group for a GBLB) has produced a website with information on a GB local board. Here is the link. www.gblocalboard.co.nz/. A key part of this is to assess GB community support for a change from a community board to a local board. We hope to partly assess this via a community survey,

embedded in the website, meetings with community and business groups, and at large community meetings. The GB Weekly & the Nelson Mail are both planning to run articles on this either this week or next, and the press will obviously play an important role in the discussion.

As the first step in deciding a strategy to move towards community consensus on this issue the Working Group has asked to meet with the Community Board for a frank and open discussion on their thoughts on how to proceed, hopefully towards the end of next week. We feel the best way forward from the current political situation is a fully open and inclusive consultative approach.

Please feel more than free to contact us on these issues or related matters.

Regards
Tony Lawton, 021-931-395
Secretary, Working Group for a Golden Bay Local Board

## 9.2 COASTAL PROTECTION STRUCTURES ON COUNCIL RESERVES

**Information Only - No Decision Required**

| | |
|---|---|
| **Report To:** | Community Development Committee |
| **Meeting Date:** | 5 July 2018 |
| **Report Author:** | Anna Gerraty, Policy Advisor |
| **Report Number:** | RCD18-07-05 |

### 1 Summary

1.1 The Golden Bay Community Board resolved at its 3 March 2018 meeting to 'request that the Community Development Committee change the policy on hard rock protection on reserves' (GBCB18-03-3).

1.2 Council's overarching policy for managing coastal hazards on reserves is contained within Section 5.3 of its Reserves General Policies 2015 document (see Attachment 1).

1.3 Reserve Management Plans may also provide management guidance for the coastal hazards at individual reserve locations. For instance, the Moturoa/Rabbit Island Reserve Management Plan 2016 contains a section on climate change, sea-level rise and coastal processes (see Attachment 2) and the Abel Tasman Foreshore Scenic Reserve Management Plan 2012 contains a section on coastal projection works on foreshore reserve land that adjoins private land (see Attachment 3).

1.4 In all three examples of coastal hazard management on reserves, the policies guide Council to give preference to soft engineering approaches rather than hard defences, such as rock walls. This reflects the national policy on coastal hazard management, contained within the New Zealand Coastal Policy Statement 2010.

1.5 As currently written, these policies do not prevent Council from authorising the construction of hard protection structures on reserves. Each application should be considered on a case-by-case basis. In some circumstances, Council may choose to allow their construction, generally following assessment of impacts and some form of public consultation.

1.6 We are not recommending that Council amends the policy to make it more permissive (i.e. easier for adjacent landowners to obtain authorisation from Council to construct protective structures on coastal reserve land), as such a change could potentially have significant environmental, recreational access, cultural, aesthetic and liability implications.

1.7 Altering these policies would be considered more than a minor change to the plan/policy documents and trigger the need to undertake formal public consultation (i.e. submissions and hearings on the proposed amendments), as per Reserves Act 1977 requirements.

1.8 We recommend retaining the current policy wording relating to coastal protection structures on reserves, as contained within the relevant reserve policies/plans, for the reasons outlined in this report.

**COASTAL PROTECTION STRUCTURES ON COUNCIL RESERVES**

## 2 Draft Resolution

**That the Community Development Committee receives the Coastal Protection Structures on Council reserves report RCD18-07-05.**

**COASTAL PROTECTION STRUCTURES ON COUNCIL RESERVES**

## 3 Purpose of the Report

3.1 To inform the Committee of the implications of changing policies relating to coastal protection structures on reserves.

## 4 Background and Discussion

4.1 Council administers reserves that adjoin the coastline (e.g. esplanade, foreshore and recreation reserves) at a range of locations within Tasman District. While these reserves sometimes border public land (e.g. Abel Tasman National Park) others border private land, providing recreational access along the coast. Houses and other buildings are often sited adjacent to coastal reserves, particularly at small coastal settlements such as Pakawau, Parapara, Patons Rock and Awaroa.

4.2 Many of the District's coastal settlements are increasingly being impacted by coastal erosion, storm surges/coastal inundation. Where private land adjoins the coast, property owners may try to protect their land, e.g. by applying for resource consent to erect coastal protection structures. Coastal reserves are not immune to the impacts of coastal erosion, and land may be eroded away over time, potentially exposing houses on adjacent private land to this risk in time. At other times and conditions, reserves may build up again.

4.3 One community has recently responded to this potential risk by requesting permission to build a seawall on esplanade reserve land. The Pakawau Community Residents' Association has applied for resource consents to construct a rock revetment-type seawall on Council esplanade reserve land and the coastal marine area at Pakawau. If consents are granted, they will also need to seek permission from Council under the Reserves Act 1977, as this is a Council-administered reserve. The proposal to build a structure on the public reserve at Pakawau to protect the private land will need to go through a public consultation process (as required by the Reserves Act), prior to Council deciding whether to agree to the proposal.

4.4 The Golden Bay Community Board is concerned that the current policy in Council's Reserves General Policies document prevents people, seeking to protect their adjacent private property, from constructing coastal protection structures such as rock walls on Council-administered public reserves. However, this is not necessarily the case.

**Current policies for managing coastal hazards on Council-administered public reserves**

4.5 Council's overarching policy for managing coastal hazards on reserves is contained within Section 5.3 of its Reserves General Policies 2015 document (see Attachment 1 for a copy of this whole section). The expectations and policy wording in this section are as follows:

*5.3.1* *Expectations*

*5.3.1.1* *Coastal reserves held by Council will be managed to provide, where appropriate, for the protection, restoration or enhancement of natural defences that protect coastal land uses from coastal hazards, such as beaches, estuaries, wetlands, intertidal areas, dunes and barrier islands.*

**COASTAL PROTECTION STRUCTURES ON COUNCIL RESERVES**

*5.3.2* *Policies*

*5.3.2.1* *Council will seek sustainable natural solutions to the management of coastal hazards and vulnerabilities on coastal reserves and with consideration of climate change.*

4.6 Reserve Management Plans (RMPs) may also provide management guidance for the coastal hazards at individual reserve locations. If the policies within RMPs differ from policies contained within the Reserves General Policies document, the RMP policies take precedence.

4.7 The Moturoa/Rabbit Island Reserve Management Plan 2016 contains a section on climate change, sea-level rise and coastal processes (see Attachment 2 for a copy of the whole section). The relevant objective and policy are copied below:

*Objective 1* *To provide an adaptive response to the effects of climate change (including continuing coastal erosion, tidal inundation and changes in rainfall patterns) and to plan use and development accordingly.*

*Policy 2* *Promote soft engineering and adaptation to coastal erosion, rather than hard defences.*

4.8 The Abel Tasman Foreshore Scenic Reserve Management Plan 2012 contains a section on coastal protection works on foreshore reserve land that adjoins private land (see Attachment 3 for a copy of that section). The relevant policy and methods are copied below.

*Policy 2* *To manage coastal protection works in a manner that is consistent with the relevant legislation and delegations from the Minister of Conservation.*

*Method 2* *Coastal protection works may be allowed in accordance with the following criteria:*

*a) The potential adverse effects on the natural values of the reserve, including natural coastal processes, natural landforms and visual effects can be minimised*

*b) There is no need for on-going maintenance of a physical structure.*

*Method* 3 *Where the applicant for coastal protection works is the Tasman District Council, the Department of Conservation will be solely responsible for making a decision on the concession.*

4.9 Note that Method 3 requires that - in circumstances where, to reduce the risk of coastal erosion on the adjacent land, Council makes an application to carry out such an activity on behalf of private landowners, the delegated authority from the Minister of Conservation to the Administration Committee to grant concessions under Part 3B of the Conservation Act 1987 should be withdrawn. The Conservator of the Nelson Marlborough Conservancy of the Department of Conservation will be responsible for making a decision as the Minister's delegate.

4.10 In all three examples, the policies guide Council to give preference to soft engineering approaches rather than hard defences, such as rock walls.

4.11 Amending the policy to make it more permissive (i.e. easier for adjacent landowners to obtain authorisation from Council to construct protective structures on coastal reserve land) would have environmental, recreational access, cultural, aesthetic and liability implications.

**COASTAL PROTECTION STRUCTURES ON COUNCIL RESERVES**

Such alterations to the policy would also be considered more than a minor change to the plan/policy documents and trigger the need to undertake formal public consultation (i.e. submissions and hearings on the proposed amendments), as per Reserves Act 1977 requirements.

4.12 The three policies appended to this report give effect to the sentiments of the New Zealand Coastal Policy Statement, which generally directs that preference should be given to retreat and/or soft engineering solutions over hard structures etc, wherever possible/practicable.

4.13 The Committee should note that, while the existing policies are worded in a way that guides Council towards giving preference to soft-engineering solutions over hard structures such as rock walls, the policies do not prohibit Council from authorising the construction of hard structures on Council-administered reserves. Council should make each decision on a case-by-case basis, and in some circumstances, Council may choose to allow their construction, generally following some form of public consultation.

**Cultural implications of coastal protection structures on Council reserves**

4.14 Much of the District's coastline is culturally sensitive due to Māori occupation of these areas over hundreds of years. Works to construct coastal protection structures may uncover evidence of this occupation. Council must ensure that appropriate consultation is undertaken and consents (e.g. Archaeological Authorities) are obtained prior to making a decision to allow the construction of hard rock protection and work commencing. Also that relevant procedures are in place while work is underway (e.g. implement any conditions requiring use of iwi monitors, ensure accidental discovery protocols are followed etc).

**Aesthetic and recreational access implications of coastal protection structures on Council reserves**

4.15 The natural character of the coastline and recreational access can be compromised as a result of the construction of rock revetments and other hard protection structures. It means that the high tide beach is often lost, with flow on effects to public access of these areas. The appearance of the foreshore generally also becomes out of keeping with adjoining (more natural) coastline.

**Environmental implications of coastal protection structures on Council reserves**

4.16 Central government has produced documents that provide useful context for this issue:

i. The Ministry for the Environment (MfE) document 'Coastal Hazards and Climate Change Guidance for Local Government' (2017) is available online at: http://www.mfe.govt.nz/publications/climate-change/coastal-hazards-and-climate-change-guidance-local-government

ii. The Department of Conservation (DOC) developed the 'New Zealand Coastal Policy Statement (NZCPS) 2010' and related guidance, including a guidance note for coastal hazards: 'Policy 24 to 27 Guidance'. These are available online at: https://www.doc.govt.nz/about-us/science-publications/conservation-publications/marine-and-coastal/new-zealand-coastal-policy-statement/policy-statement-and-guidance/

4.17 Policy 27(4) of the NZCPS is of most relevance to this report. It directs that, unless there is significant public or environmental benefit in locating a private property protection structure

**COASTAL PROTECTION STRUCTURES ON COUNCIL RESERVES**

on public land, that structure (if found to be necessary) should be located within the private property.

4.18 This clause relates to hard protection structures that have the purpose of protecting private assets. It recognises the values of public access along and within the coastal marine area and of public open space, and the many values of the public space and assets of wetlands, saltmarsh, lagoons, dunes, beaches and foreshore. It is also related to the direction in Policy 27(3) of the NZCPS, to locate any hard protection structure in a way that minimises adverse effects on the coastal environment.

4.19 Policies 24-27 of the NZCPS are also relevant to the management of coastal hazards and the following is noted in the NZCPS guidance document:

4.19.1 The overarching goal of the coastal hazard objectives and policies is to manage coastal hazard risks so that the likelihood of them causing social, cultural, environmental and economic harm is not increased. This includes harm arising from responses to those coastal hazards, such as the addition of hard protection structures. The adoption of long-term risk-reduction approaches is strongly encouraged.

4.19.2 There are no straightforward options to reduce or even contain the overall harm that is likely to occur to significant existing development that is under threat from increasing climate change effects including sea level rise. Policy 27 directs local authorities to develop long-term adaptive strategies for areas of significant existing development by assessing a range of options for reducing coastal hazard risks.

4.19.3 Policy 25 (e) discourages hard protection structures and promotes the use of alternatives to them, including natural defences. This discouragement of (or need for rigorous justification for) hard protection structures is explicitly addressed in several clauses in Policies 25 and 27. Policy 26 elaborates on the use of natural defences as a preferred alternative to hard protection structures.

4.19.4 The harm or costs from hard protection structures can include:

i. high financial costs to build and increasing maintenance commitment required, particularly with ongoing sea-level rise and other climate change effects;

ii. increased future social costs if development increases as a result of the perceived long-term coastal hazard protection they provide and a large coastal hazard event then causes damage despite their presence;

iii. increased future social costs if the upgrading or re-construction they require to resist increasing coastal hazards becomes financially unsustainable for communities or there are resource limitations (e.g. sourcing beach re-nourishment material);

iv. degradation or loss of the natural coastal features in front of them as a result of "coastal squeeze" the timing of which will depend on how far seaward the structures are located;

v. the immediate loss of parts of the beach or shore within the footprint of the hard protection structure;

vi. impacts on ecological, natural character and landscape values;

vii. adverse effects on other properties along the coastline (end effects and downstream effects) that can extend considerable distances away from the structure; and

viii. adverse effects on natural coastal features "downstream" along the coast.

4.19.5 Even in purely economic and engineering terms, hard protection structures are likely to become unsustainable in many situations as climate change progresses and sea-level rises continue.

4.19.6 National policy requires that proactive, well-informed, precautionary and risk-based management of coastal hazards is provided because:

i. the value of coastal assets is increasing;

ii. the likelihood of damage to coastal assets is increasing;

iii. the timing and severity of climate change effects are uncertain;

iv. there is a need for a well-informed assessment of risk;

v. risk-based management is required;

vi. harm can arise from both the coastal hazards and the hazard responses;

vii. the harm can be social, cultural and environmental, as well as economic; and

viii. substantial challenges are faced in adapting to coastal hazards and climate change.

**Liability and other implications of coastal protection structures on Council reserves**

4.20 If Council chose to build, or authorise others to construct, protective structures on coastal reserve land, it would need to consider the following issues:

- precedent;
- form of structure;
- who owns the structure;
- maintenance obligations – how to record?
- future liability;
- whether, and if so how, obligations for ownership and maintenance transfer to subsequent landowners;
- potential liability if there are 'end wall effects' or downstream effects, or if the structure fails and does not provide the protection it was intended to provide;
- who pays?;
- Reserve Act restrictions;
- implications of the proposal for public access, recreational activities, the natural environment and cultural impacts;

**COASTAL PROTECTION STRUCTURES ON COUNCIL RESERVES**

- implications of using public land for private benefit;
- the contentious nature of such applications and the likelihood of legal challenge to a decision, whichever way a decision may go;
- the need for a resource consent – what is the likelihood of obtaining a consent?; and
- implications of the New Zealand Coastal Policy Statement (see paragraphs 4.16 to 4.19 above).

4.21 The construction of coastal protection structures may aggravate coastal erosion on properties at either end of the structure ('end wall effects'). The Committee is reminded of the Jackett Island situation. In 2011, an interim decision of the Environment Court found that the placement of the Port Motueka geotextile groyne structure on the Motueka sandspit by the Council in 1996 had led to the formation of the spit in its present form which in turn, had brought about the erosion on Jackett Island. In 2014, the Court decided that there was no viable, reasonable or sustainable long term solution to the erosion on Jackett Island. Council was ordered to maintain and monitor the Jackett Island foreshore on the Van Dyke property on Jackett Island until January 2017. This cost Council a considerable amount of money. Further details about this case are available on Council's website: http://www.tasman.govt.nz/environment/coastal-marine/coastal-marine-management/coastal-hazards/port-motueka-groyne-jackett-island-erosion/

4.22 Potential liability issues could arise if coastal protection structures are constructed by the Council on its land or it allows private parties to construct structures on its land (although this will largely depend on what agreements/mechanisms are put in place regarding responsibility for the structure when it is constructed). Put simply, if Council authorises or erects structures that involve a public nuisance or if they interfere with individual rights, then potential liability is likely to arise. The most likely scenarios are a nuisance claim or an application for an enforcement order under the RMA.

**Marine and Coastal Area (Takutai Moana) Act 2011**

4.23 Under the Takutai Moana Act, if coastal erosion occurs over time and an existing reserve is regularly covered by water (i.e. most tides), the land becomes 'common marine and coastal area' and the title to the land divests (i.e. the reserve land is no longer owned by Council).

**Council's roles in decision-making relating to authorising coastal protection works on reserve land**

4.24 In addition to Council's role as a consent authority under the Resource Management Act (RMA), Council has two additional roles under the Reserves Act. This means that authorisation of coastal protection works on reserve land involves:

i. obtaining the relevant resource consents (a separate process under the RMA);

ii. Council's consideration of any proposal under the Reserves Act; and

iii. use of delegated authority from the Minister of Conservation to give prior consent to the proposal.

4.25 The Reserves Act requires the prior consent of the Minister of Conservation (the Minister). However the Minister, by written delegation dated 12 June 2013, has delegated his consent

**COASTAL PROTECTION STRUCTURES ON COUNCIL RESERVES**

role to territorial authorities. In practice what this means is that Council wears 'two hats' in this process.

4.26 First, Council would process any proposal to undertake coastal protection works, including public notification of any proposal (as required by the Reserves Act) and a hearing of submissions received on it through the public notification. Then, prior to authorising the coastal protection structure, the Council, as the Minister's delegate, must provide prior consent to the proposal. That consenting role, undertaken on behalf of the Minister, is primarily a supervisory role of the process undertaken by Council. It includes having regard to procedural matters such as:

- that the status of the land has been correctly identified and the administering body has the power and authority to make the decision;
- that the correct statutory process has been followed;
- that the administering body has taken the functions and purposes of the Reserves Act into account;
- that any objections and submissions have been taken into account, and the proposed decision is reasonable in an administrative law sense; and
- that any necessary consultation has been undertaken with tangata whenua.

4.27 Once the prior consent has been provided on behalf of the Minister, then the Council, as administering body, may authorise the coastal protection works.

4.28 Note that specific consultation with iwi would also be required, to ensure that we give regard to the Reserves Act, Statutory Acknowledgement Areas and the applications for customary marine title, currently underway. The policy environment surrounding the latter is shifting over time, as progress is being made towards resolving these matters. Access to the coast is one of the key issues of interest to iwi in this space. The entire coastal marine area within Tasman District is a Statutory Acknowledgement area for all eight of the Te Tau Ihu (Top of the South) iwi.

**Upcoming work programme on natural hazards**

4.29 Environmental Policy staff held two coastal hazard workshops with Councillors during May and June 2018, and agreement was made to commence work on a coastal inundation project.

4.30 Phase one of the project will include mapping coastal inundation (including sea level rise) across the District. Community engagement on the mapped information is planned for March-April 2019. Staff will seek feedback on the mapping information and identify which locations the community values that may be affected by inundation (e.g. land, buildings, community assets).

4.31 A second phase of work will include the consideration of options of how to respond to inundation risk, for example: the management of land use, protection of private and public land/assets, and longer term options – such as managed retreat.

4.32 This project is applying the broad principles of MfE's 'Coastal Hazards and Climate Change Guidance' (2017), which outlines a long-term strategic planning and decision-making framework for coastal areas affected by coastal hazards. This work will form the basis of a

future review of the TRMP coastal hazards provisions and will involve staged engagement with both Councillors and the community at key points during the work programme.

4.33 This work will also enable consideration of broader implications for other Council work such as the Future Development Strategy, Infrastructure Strategy, Long Term Plan 2021-2031, Activity Management Plans and Reserve Management Plans. It also ties in with work that the Engineering Department is undertaking, including risk, resilience and recovery planning; a coastal asset management strategy; and catchment management planning.

4.34 To avoid making a decision on the topic of coastal protection structures in reserves in isolation, Council could consider the matter in this wider context of natural hazard management.

## 5 Conclusion

5.1 Policies on coastal protection structures are included in at least three of Council's reserve management plans/policy documents. In all three examples discussed in this report, the policies guide Council to give preference to soft engineering approaches rather than hard defences, such as rock walls.

5.2 The three policies appended to this report give effect to the sentiments of the New Zealand Coastal Policy Statement, which generally directs that preference should be given to retreat and/or soft engineering solutions over hard structures, wherever possible/practicable.

5.3 While the existing policies are worded in a way that guides Council towards giving preference to soft-engineering solutions over hard structures such as rock walls, the policies do not prohibit Council from authorising the construction of hard structures on Council-administered reserves.

5.4 Each decision should be made on a case-by-case basis. In some circumstances Council may choose to allow their construction, generally following an assessment of impacts and some form of public consultation. A clear framework for their construction, ownership, maintenance and ongoing liability, should also form part of this decision-making process.

5.5 We are not recommending that Council amends the policy to make it more permissive (i.e. easier for adjacent landowners to obtain authorisation from Council to construct protective structures on coastal reserve land), as such a change could potentially have significant environmental, recreational access, cultural, aesthetic and liability implications.

5.6 Any alterations to the policies may be considered more than a minor change to the plan/policy documents and trigger the need to undertake formal public consultation (i.e. submissions and hearings on the proposed amendments), as per Reserves Act 1977 requirements.

5.7 Staff recommend retaining the current policy wording of the relevant reserve policies/plans for these reasons and the other matters that need to be addressed, as outlined in paragraphs 4.14 to 4.28 of this report.

**COASTAL PROTECTION STRUCTURES ON COUNCIL RESERVES**

## 6 Next Steps / Timeline

6.1 Staff are planning to hold a series of workshops on natural hazards and coastal erosion with Councillors over the next year or so. To avoid making a decision on the topic of coastal protection structures in reserves in isolation, it could be included as an agenda item for these workshops and therefore considered in the wider context of natural hazard management.

6.2 If Council wants further information to assist with understanding the impacts of coastal protection structures on reserves then we recommend seeking independent advice from specialists such as Jim Dahm for this purpose. He could be invited to attend one or more of the planned workshops on coastal hazard management.

## 7 Attachments

1. Extract from Councils Reserves General Policies document on coastal hazards
2. Extract from Moturoa Rabbit Island RMP on climate change, sea level rise and coastal processes
3. Exract from Abel Tasman Foreshore Scenic Reserve Management Plan on coastal protection works on foreshore reserve land adjoining private land

**EXTRACT FROM COUNCIL'S RESERVES GENERAL POLICIES (2015) DOCUMENT:**

**5.3 Coastal hazards**

Council has an obligation to manage the coast in accordance with the *New Zealand Coastal Policy Statement 2010*, which guides local authorities with respect to the management of the coastal environment. Management of coastal reserves needs to pay particular regard to Policy 26 *Natural defences against coastal hazards*. The Ministry for the Environment's *Coastal Hazards and Climate Change Guidance Manual for Local Government*, dated July 2008, outlines the preferred methods to give effect to this policy.

Identifying and understanding coastal hazards, vulnerabilities and potential consequences provides a foundation for land-use and emergency planning policies, and strategies for managing the associated risks. These basic principles must also be underpinned by effective communication to build community awareness and public and political support for coastal hazard risk planning activities, and to support the processes of community consultation and participation for achieving effective community planning outcomes. There must also be a community acceptance of the upper threshold of risk treatment before emergency management arrangements come into play (especially for episodic events such as tsunami or storm-tide inundation).

The Council is not planning to provide any increased levels of protection to properties adjoining coastal reserves. Rather, it will manage its coastal reserves, with the co-operation of the coastal communities living alongside them, so as to increase their natural resilience.

Areas that will be managed in this way include beaches, estuaries, wetlands, intertidal areas, dunes and barrier islands.

The main management method will be the implementation of a comprehensive Coast Care management programme to protect, restore and manage healthy indigenous coastal vegetation around the coastal margin. This will also implement the policies in Section 5.1 *Protection and enhancement of indigenous biodiversity*.

***5.3.1 Expectations***

5.3.1.1 Coastal reserves held by Council will be managed to provide, where appropriate, for the protection, restoration or enhancement of natural defences that protect coastal land uses from coastal hazards, such as beaches, estuaries, wetlands, intertidal areas, dunes and barrier islands.

***5.3.2 Policies***

5.3.2.1 Council will seek sustainable natural solutions to the management of coastal hazards and vulnerabilities on coastal reserves and with consideration of climate change.

***5.3.3 Methods***

5.3.3.1 A coastal hazard monitoring programme to record coastal change and to enable prediction of trends.

5.3.3.2 A management programme that will guide actions to manage predicted coastal hazards.

5.3.3.3 The Coast Care programme, a community partnership drawing on local knowledge and enthusiasm, to protect and restore the form and function of the natural coastal environment, and other volunteer programmes.

5.3.3.4 Reserve management plans.

5.3.3.5 NZCPS and TRMP.

**EXTRACT FROM MOTUROA/RABBIT ISLAND RESERVE MANAGEMENT PLAN 2016:**

## 5.3 CLIMATE CHANGE, SEA-LEVEL RISE & COASTAL PROCESSES

ISSUES & OPPORTUNITIES

Analysis of aerial photographs since the 1940s show that the front beach of Moturoa/Rabbit Island has seen a build-up of sand along the western end and erosion to the shore line along the eastern end (see Figure 8). Occasional storms have caused short term fluctuations in this trend.

Before plantation forests were established, the Islands were prone to wind erosion of the sand deposits. The plantation has been successful to some degree in halting this trend. However, coastal erosion is impacting the front beach of Moturoa/Rabbit Island, and this is anticipated to be exacerbated by projected sea level rise, causing both higher sea levels and an increased incidence of storm events. It is predicted that sea level rise will also impact other low-lying parts of Moturoa/Rabbit Island, Rough Island and Bird Island, e.g. through tidal inundation of low-lying areas and changes in salinity levels. Some areas are currently affected by poor drainage and ponding after significant rainfall events, which may occur more frequently as a result of climate change.

Although it is difficult to predict the future effects of rising sea level as a result of climate change, the results of modelling are shown in Figure 9. The land shaded in pink are the areas that are likely to be inundated following a one metre rise in sea level[1]. The areas shaded in blue indicate ground levels that are lower than the existing high tide line. Blue shaded areas that are located away from the shoreline (such as the existing picnic areas behind the front beach on Moturoa/Rabbit Island) are less likely to be inundated. Figure 9 does not predict how the shoreline might be eroded by storm events and high tides.

The shoreline profiles around the Islands vary, ranging from steep banks that are a metre or more high, to locations where the shoreline consists of a gentle gradation from the intertidal area to dry land. The effects of sea level rise on existing and proposed shoreline vegetation will therefore vary from location to location.

The hardening of coastal margins, by tide-banks, roads and protection works, results in a loss of high-shore habitat and ecosystems. If sea levels rise as predicted, these losses will be compounded, i.e. additional high-shore habitat will be lost. This Plan continues to make provision for managed retreat (e.g. relocating the foredune, roads and facilities inland), rather than building rock seawalls, revetments or other hard structures to protect existing infrastructure.

Putting measures in place in an attempt to control coastal erosion is extremely costly and attempts at control are seldom fully effective. Predictions of rising sea levels and changing weather patterns suggest that erosion forces will increase. The most cost effective response to coastal erosion is to:

i. design facilities so that erosion will not cause costly damage; and
ii. to reduce the rate of erosion by promoting the natural build-up of shoreline sand dunes that will act as erosion buffers during storms.

[1] The Ministry for the Environment predictions are for sea levels to rise by one metre over the next 100 years. See Ministry for the Environment (2008). *Coastal Hazard and Climate Change: A Guidance Manual for Local Government in New Zealand*.

Council also has a current resource consent to undertake sand 'push-ups' along the front beach, to further slow erosion of the foredune. Activities on the Islands must comply with the objectives and policies in the New Zealand Coastal Policy Statement 2010.

Council is aware that management of the plantation forest may need to change in order to respond to sea level rise. Low-lying areas of the Islands may no longer be suitable for growing *Pinus radiata* in future. There is also a risk of saltwater intrusion of groundwater within the area, which will affect vegetation survival. In the longer term, forestry could potentially move from pines to a more natural, continuous cover native forestry, such as tōtara, with longer rotation periods. It may also be possible to retain economic benefits of a commercial forest.



**OBJECTIVES**

1 To provide an adaptive response to the effects of climate change (including continuing coastal erosion, tidal inundation and changes in rainfall patterns) and to plan use and development accordingly.

**POLICES**

1 Recognise and provide for the effects of sea level rise and climate change in relation to restoration projects, particularly for coastal margin species, where sea level rise projections show that extensive inland migration will be required over the next few decades.

2 Promote soft engineering and adaptation to coastal erosion, rather than hard defences.

3 Take a 'managed retreat' approach to sea level rise by ensuring that coastal hazards and climate change are taken into account in the location, design and construction of all buildings, facilities and improvements, and that facilities and structures in high risk areas are designed to be removable or expendable.

4 Map areas subject to ponding/high water tables after significant rainfall events, and manage these to mitigate impacts.

5 Vegetation management along the front beach of Moturoa/Rabbit Island should encourage deposition of windblown sand in the foredune area and minimise wind erosion of the dunes. Tall coastal trees should be progressively replaced with low growing, sand trapping vegetation. Preference will be given to planting indigenous species.

6 Damage to vegetation on shoreline dunes shall be avoided or otherwise minimised, by discouraging or controlling access to them by recreational users, vehicles and animals.

7 Investigate the possibility of reinstating the natural tidal flush into the low-lying area located between Tic Toc Road and the Rough Island events and equestrian park, to restore the ecological integrity and heritage significance of this wetland area.

8 Consider the potential impacts of sea level rise and salt water intrusion on plantation reserve areas when updating the Forestry Management Plan.

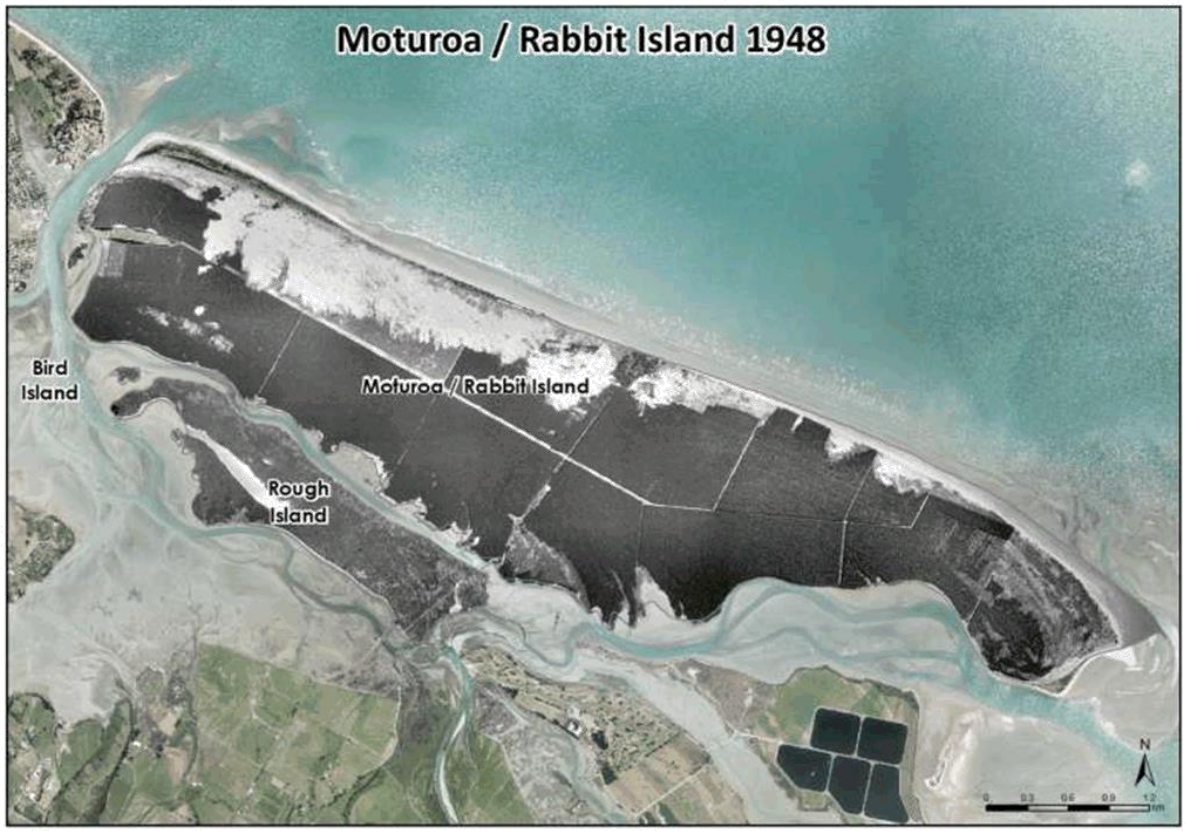



*Figure 8: 1948 aerial photo of the Islands, showing extensive sand dune areas on Moturoa/ Rabbit Island. Low-lying areas of Rough Island are also visible.*

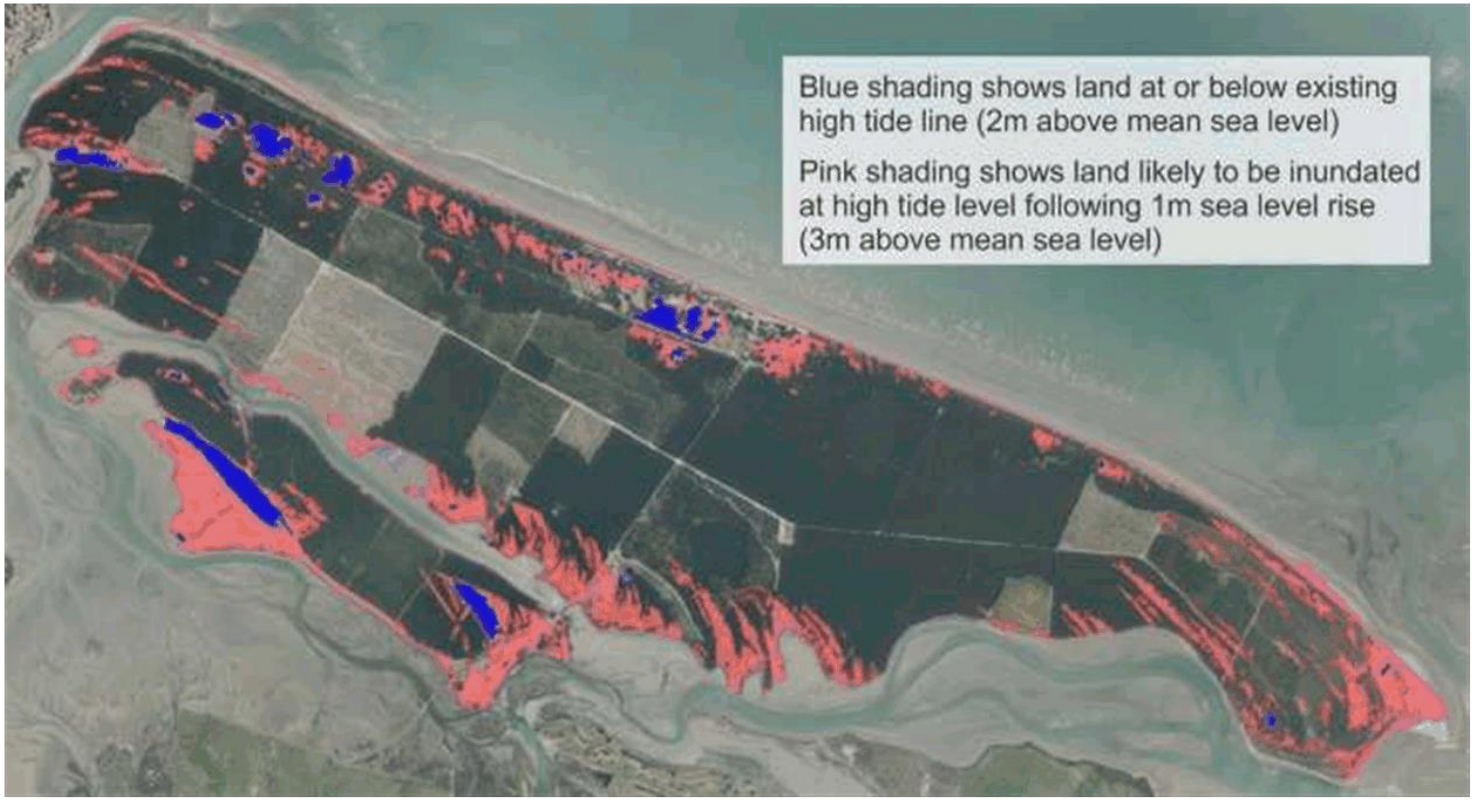



*Figure 9: Areas at risk of inundation at high tide by a sea level rise of one metre.*

**EXTRACT FROM ABEL TASMAN FORESHORE SCENIC RESERVE MANAGEMENT PLAN 2012:**

**11.7.2 Non-recreation concessions**

***11.7.2.1 Coastal protection works***

Coastal protection works (such as beach re-nourishment), that are within the reserve, require authorisation where the activity:

(a) Is not being carried out by (or on behalf of) the Administration Committee for the purposes of managing the reserve, in accordance with section 55 of the Reserves Act 1977; and/or
(b) Involves the erection of a structure or associated facility.

This authorisation is in addition to any coastal permit, resource consent or building consent required from the Tasman District Council. The criteria set out in Method 2 [see below] should be taken into account when considering an application to carry out coastal protection works.

In circumstances where, to reduce the risk of coastal erosion on the adjacent land, Tasman District Council makes an application to carry out such an activity on behalf of private landowners, the delegated authority from the Minister of Conservation to the Administration Committee to grant concessions under Part 3B of the Conservation Act 1987 should be withdrawn. The Conservator of the Nelson Marlborough Conservancy of the Department of Conservation will be responsible for making a decision as the Minister's delegate.

Where any beach re-nourishment is carried out by the Administration Committee for management purposes, such as protecting and preserving the reserve for the benefit and enjoyment of the public, the authority to do so has been delegated by the Minister of Conservation.

**11.7 Policies**

1. To provide for recreation concessions on the Foreshore Adjacent to Private Land that do not adversely affect the values of the reserve.

2. To manage coastal protection works in a manner that is consistent with the relevant legislation and delegations from the Minister of Conservation.

**11.7 Methods**

1. *All recreation concessions on Foreshore Adjacent to Private Land should be in accordance with the conditions set out in Table 5.*

2. *Coastal protection works may be allowed in accordance with the following criteria:*
   *a) The potential adverse effects on the natural values of the reserve, including natural coastal processes, natural landforms and visual effects can be minimised*
   *b) There is no need for on-going maintenance of a physical structure.*

3. *Where the applicant for coastal protection works is the Tasman District Council, the Department of Conservation will be solely responsible for making a decision on the concession.*

P95 – ROLAND TODER

Consultation Submission – Roland Toder:

What I have written in my submission concerning P95 is below,

a) Cost estimates far to vague: Regardless on whether we'll need a dam or not I think that the cost estimates for the dam are too vague. A so-called 'P95', as mentioned by TDC is misleading. In project management, percentiles are expressed by P followed by the percentile. A P95 estimate of $82.5million means that the project has a 95% chance of being completed with this or less amount of money. Normally one uses data one has from similar activities (like executed several dams of similar size before). Ideally, if you have a number of similar activities (many dams of similar size) that would be best, because from this data, you need to find the mean (expected value) and the standard deviation (to determine the range of error) for each activity. THEN you can calculate cost and timing estimates for the entire project.
(https://books.google.co.nz/books?id=sdMDAAAAQBAJ&pg=PA269&lpg=PA269&dq=p95+cost+estimate&source=bl&ots=dYxxaeBKAq&sig=ZQAdDmoF1s1suHSI_hwMTNZHWVE&hl=en&sa=X&ved=0ahUKEwjm48-2ivzXAhWFUQKHQfwC20Q6AEINTAD#v=onepage&q=p95%20cost%20estimate&f=false)

To state that the cost estimate was made under P-95 is a pretty brave statement and would in industry only be used if they have done several very similar or identical projects from A to Z and know exactly the cost-structure and its risks. To my knowledge – confirmed from the WIL project manager – none of the project managers of TDC or WIL have ever done an entire dam of that size, such as planning, structuring, building, executing and finalizing.

It is very irritating to receive in October information from TDC on how much the dam will cost when I learned in a WIL meeting, held in November in Takaka, that contractors (none of them have ever done a dam either to my information) are shortlisted now and by mid of December TDC / WIL will have offers/quotes. BUT the ratepayers where urged to submit their submissions by 26th November on 'model' cost estimates from TDC/WIL and their dam project managers.

**An Oxford University study on large dams in 2014** (http://www.scoop.co.nz/stories/PO1404/S00318/oxford-university-study-says-large-dams-are-uneconomical.htm) already showed that planners and policymakers systematically underestimate the costs and time required to implement large dam projects: the actual costs of large dams were 96% higher than the estimate, **on average,** and implementation took 44% longer than scheduled. This report explicitly states that large dams are not economical. The study was based on a representative sample of 245 large dams built in 65 different countries between 1934 and 2007. It concludes that cost and time overruns have not improved over time.
**And now we should believe that an un-experienced team at TDC and WIL will be the first who'll meet the cost-estimate for a large dam.**

The study cites two reasons for these immense cost and time overruns:

1. Experts and laypersons are systematically 'too optimistic about the time, costs and benefits of a decision'
2. Project promoters deceive the decision-makers and the public with strategic misrepresentations. *Like I have seen with TDC in relation the other options of the dam!*

***All larger dams in NZ suffered from significant cost overrun.***

*Even during planning processes – one could see dramatic increases of costs:*
*For example:*
*During the Hawkes Bay dam project the cost jumped by $300mio to over $900mio, the construction cost of the dam alone has jumped by nearly $100mio to $333mio. (https://www.radionz.co.nz/news/regional/301334/dam's-cost-jumps-to-more-than-$900m), April 2016.*

*Clyde Dam: (https://energy.nzx.com/history) The Clyde Dam was marred by major cost overruns due to poor site selection where a fault line was located under the dam after construction had begun.*

*Some of your own CRs also believe that the Waimera Irrigation Dam will be a lot more expensive then currently estimated.*

*Here just some material matters that have not been scheduled or costed into the project and therefore the Waimea Irrigation Dam project so far:*

*Sealing of the dam is an unpredictable cost component.*

*Cost and availability of the land is still uncertain – TDC was declining to provide answers citing that they are still in negotiations with DOC, Ngati Koata and other land owners – so the actual purchase price is not certain.*

*Clearing of the 80ha reservoir will generate an excess of 1mio cubic meters of tree stumps, top soil and organic detritus and will need a large (many hectares – up to 30) storage area. These costs including the purchase approx. $20-$30million.*

*Costs of recreating roads, bridges, logging and skid sites. The current allowances do not make provision for 60 tonne log trucks. Industry sources suggest the costs of this could be as much as $10million.*

*Other points would be the accurate pricing of electricity and back up power, uncertainty in costs for sealing of the reservoir, and others are subject of further uncertainties.*

*Basically I believe that the cost calculation is just to skinny and weak to allow ANY discussion about funding models at all, in fact it shows rather that a large dam – from a financial point of view – is not a viable option.*

COST BLOWOUT

## Waimea Dam Updated Cost

LC

Louise Coleman

**Reply**
Yesterday, 1:57 p.m.
richard.kempthorne@tasman.govt.nz;
sue.brown@tasman.govt.nz;
paul.sangster@tasman.govt.nz;
+12 more

CostBlowoutLetter.docx
17 KB

Download
Save to OneDrive - Personal

**The recent press release is most certainly another nail in the Dam's headwall. I hope things are in progress for all Councillors to discuss the issues within the next few days, but in the event that the Mayor wants to keep you all in the dark, here is my view of the matter - please refer to the attached document.**

**Regards**

**Louise**

Dear all Councillors,

The news of the cost blowout in relation to the Waimea Dam is of no surprise whatsoever to anyone with a modicum of intelligence, especially those of us with professional expertise who have been consistently sending the message that you, the councillors, are being presented biased information. The option has always been, and will continue to be, high cost and high risk and more cost effective options exist for urban water supply augmentation. You've been fooled on the land, you've been fooled on the price, what information can you rely on?

The test of leadership is how one responds in a crisis. The failure of two critical components of the option, **securing the land,** and **affordable price** now constitutes a crisis for the Waimea Dam. One would hope that a good leader (certainly after initial discussions with Snr Officers) would call all parties to the table (officers and councillors), provide full information on the tender price and include a full update of the operating costs as well as the capital cost, together with the land acquisition risks (and all other risks) - and have a **very robust** discussion on how to proceed. Only then would you issue a press release, agreed by Council.

What does our Mayor do? Firstly he has decided that the only elected representative who can be allowed to know the cost blowout is himself, as he refuses to inform the rest of you. This means you are unable to execute your governance function in terms of halting the Dam if you feel this is the most expedient thing to do. He then makes a very ill worded press release which compromises both the integrity of himself and the Council. He doesn't know the blowout figure, Richard Kirby does, but refuses to say and apparently hasn't told the Mayor?! The Mayor's choice of wording points to nothing short of a fudge on figures to keep it on track. It isn't a good look and it demonstrates terrible leadership. So what are you Councillors going to do about it?

He is also testing the boundary between stupidity and culpability in respect of those councillors who, despite all the evidence to the contrary, have continued to vote for the dam to proceed. It is staggering that you do not want to avail yourself of critical pieces of information which you need in order to exercise governance over the option's progression – namely - not wanting regular and full client side updates on cost (Capital and Operational), and not being the slightest bit interested in looking at the risk register or viewing the term sheets. It now appears that when you are told you can't be party to the cost blowout, a majority of you just bow your heads and walk out of the door. I wonder what an official investigation would make of all this?

The Dam is costing the ratepayer **thousands** of dollars **every day**. You shouldn't wait till the Full Council to discuss this matter. If you, the Councillors, would deem the cost blowout too large for your continued support, you need to act now. The Mayor is depriving you of your governance responsibilities, depriving the ratepayer of a democratic process and continues the squandering of valuable public resources. This is Dictatorship in action and it is totally unacceptable.

What you need to do to discharge your governance role on behalf of the ratepayer (for which you are all being well paid) is thus:

1. You need to demand a full meeting as described in my second paragraph which provides not only the full details of the contract price blowout**, but also** the full updated operating costs of the project **and** the weekly costs of proceeding the dam (including contractor payments), which should be known if financial management is being undertaken. The methods of funding the increased costs should be identified and agreed, or if the cost is too high, the Dam should be stopped right now.

2. At the same time you need to fully understand the inherent price risk of proceeding with a high contract estimate if it isn't a fixed price. Assume a further 20% blowout and decide if you still want to proceed. Assume a 50% blowout and discuss what effect this would have on TDC and the services it provides to the public, and the effect on the maintenance of current assets. If you don't have a fixed price contract then it **will** go over estimate.
3. You need to review the full risk register and assess all remaining risks.
4. You need to be made aware what the total final sunk costs would be if the Local Bill fails and the project thus fails early 2019. The Finance Manager should already have made you aware of this cost as the risk exists, but I somehow doubt it.

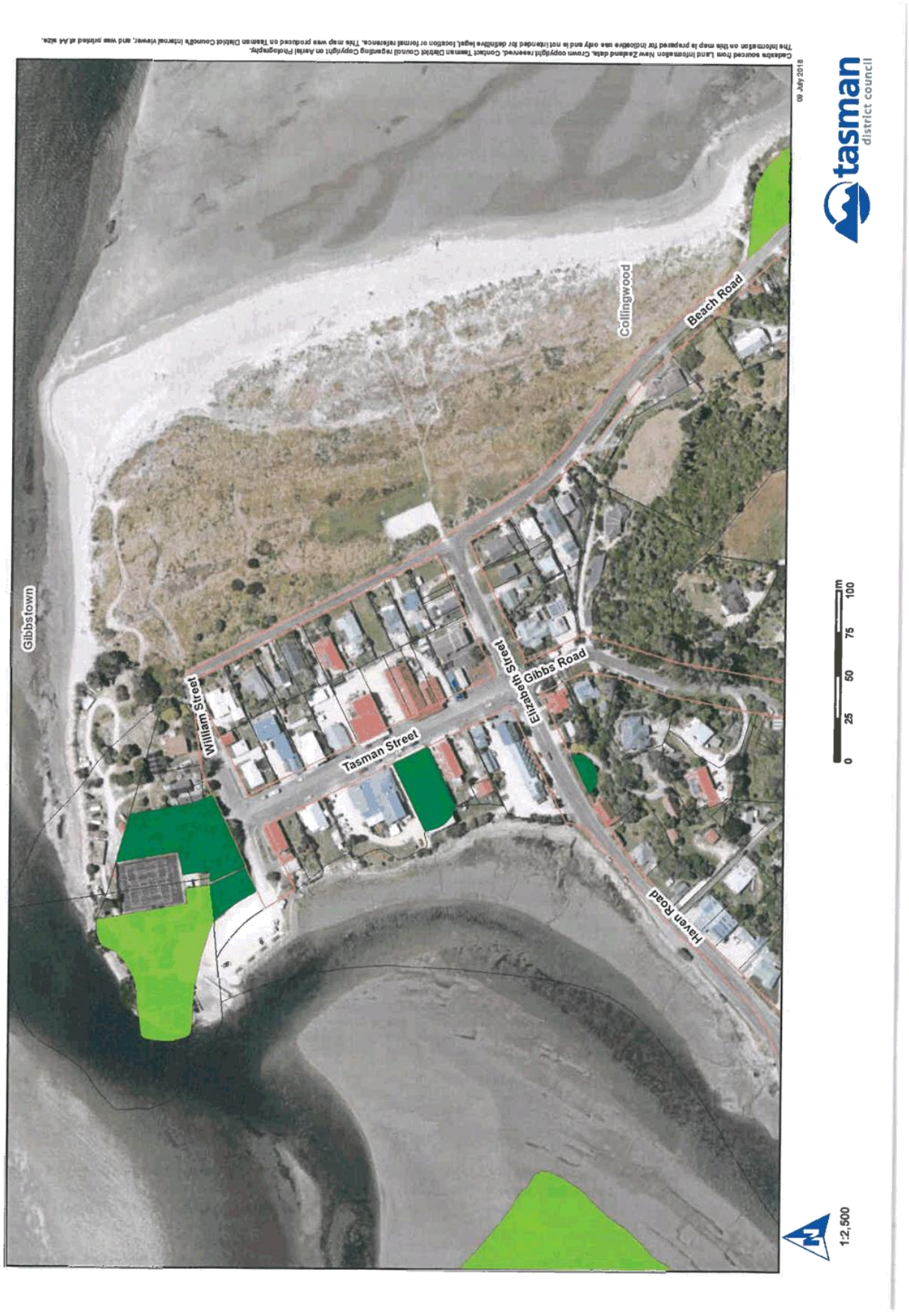
If these demands are not met, then you need to complain to the Auditor General.

I hope you are all aware that any Councillor voting to continue with this cost innefective white elephant will be remembered not for the massaged price that appears at August Council, but the final price paid on completion. I hope you all give this fact due regard.

Finally Councillor McNamara has quite rightly called for someone to be held to account for this debacle. From following the proceedings for well over a year and based on my 23 years of Local Government financial experience, I would say that the accountability rests with more than one person. These people should most certainly be held to account in my opinion. They have made at least six of you look rather foolish and potentially put you in a questionable position if there is a judicial review.

Lastly, looking out of the window as the rain lashes down, a pertinent question seems to be: Over the last few years, which climate change element has caused the District, it businesses and ratepayers the most problems, financial and otherwise. Is it drought or is it flooding?!

Louise Coleman, Golden Bay


Gibbstown
William Street
Tasman Street
Elizabeth Street
Gibbs Road
Collingwood
Beach Road
Haven Road
tasman district council
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08 July 2018
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Legend

**Context**

Placenames

Roads

**Recreation**

Esplanade Access Strips

Reserves

DOC Estate

**Roads**

Road Boundaries

Road Name

**Consents**

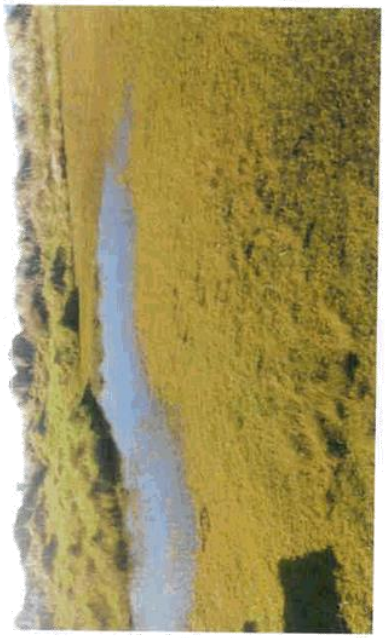
**BoresDams**

**PropertyData**

Parcel

**LiDAR Contours**

**Licences**



Attachment 8

**Emma Gee**

| | |
|---|---|
| **From:** | Graham and Denise Rogers <casarosa1@ts.co.nz> |
| **Sent:** | Thursday, 5 July 2018 11:01 a.m. |
| **To:** | Abbie Langford; David Gowland; Grant Knowles; Sue Brown; Paul Sangster; Dennis Bush-King; Emma Gee; Kim Arnold |
| **Subject:** | Public Forum - progress Pohara flooding |
| **Follow Up Flag:** | Follow up |
| **Flag Status:** | Flagged |

Good morning all, I have been unable to attend your meetings since 14 November 2017 and have absented myself while you dealt with ex-tropical cyclones, barge services, S H 60 closures and The Grandstand.

Never the less the issue of flooding at Pohara will not resolve itself.

I intend to ask at the Public Forum on Tuesday 10 July

**Is there any progress to report on the resolution of the flooding situation at Pohara?**

Graham Rogers
10 Watino Place
Pohara

1

Re:

A) Ligar Bay Developments
20 Materoa Rd.

- John + I live downstream of this sub-division.

at 1094
Abel Tasman Drive
Ligar Bay

B
2 Ligar Bay Developments (Des Payne) approx 5.8 ha proposes a subdivision of 54 houses upstream of our property.

Matenga Road runs through the whole property.

Drain 1 crosses diagonally thru Sub-div.

Drain 2 is on its North Boundary

They flow downstream to the culvert under AT Drive which is inadequate now

(c) Its proposed That parts of the subdivision be raised to protect from ~~flooding~~ stormwater & flooding.

(see big map)

Drain 1 runs thry the proposed site of 54 houses, then through private ownership, then through TDC (Road Reserve) property and into Culvert # ~~39~~ 39.2 [previously # 40 & before that as #43 - Dec 2011]

D (Re storm Water ~~Assessing~~)

"Quote

No storm water system was required by TDC as they believed the creek (Drain 1 & 2, etc) would cope"

We were told this by a TDC staff member about 1 years ago, standing by ~~(Theo + Baden)~~ Blyth pump shed, in land currently owned by Pritchard.

(E)

Re Storm Water/design using Detention Tanks

① TDC Now suggests not using any attuation system from roofs

② Most of these houses are likely to be holiday homes in a higher proportion than very normal in Ligar. full time residents therefore water tanks are full most of the time.

E-1

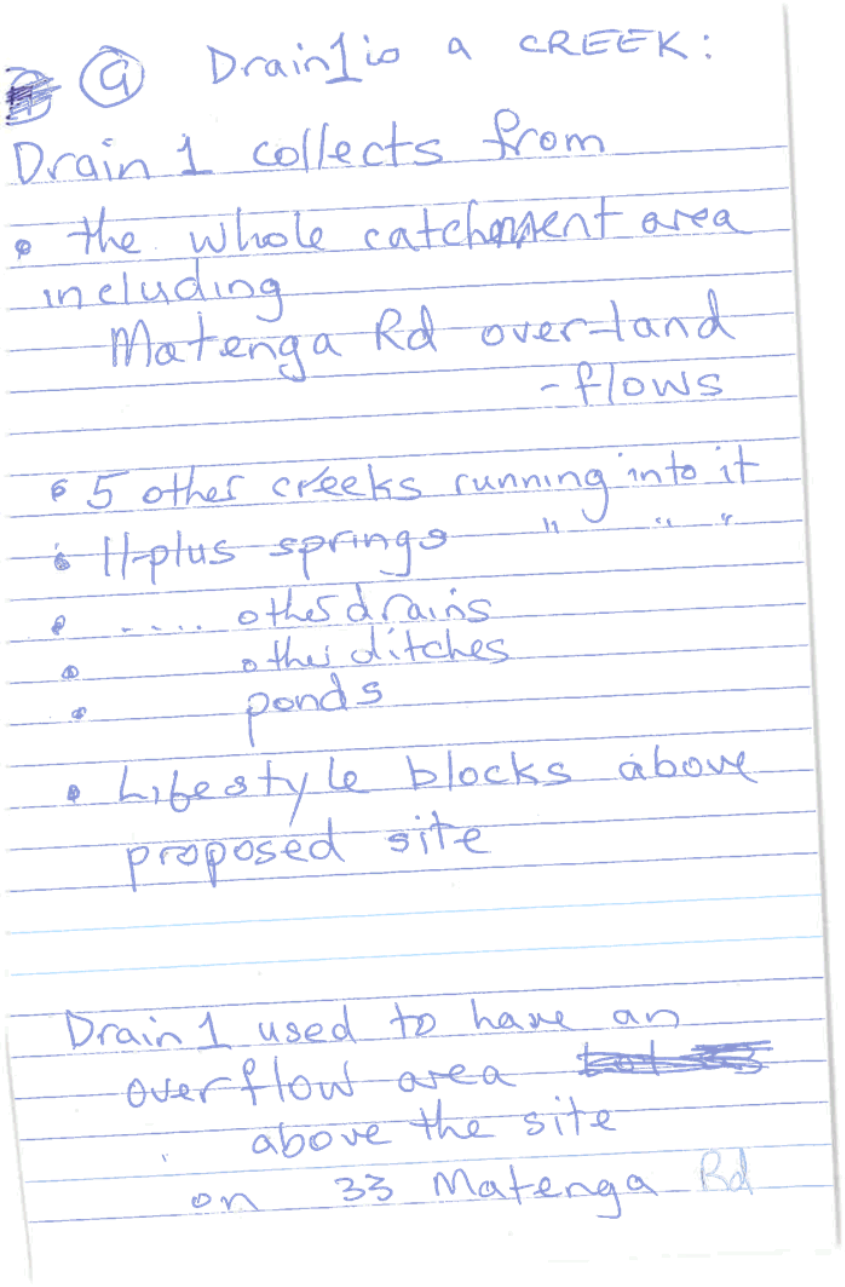
p.23 Annexure A
by Planscapes 4th para..

For the purpose of this
pplication, T+T have determined
hat there will be a negligible
ffect of flood depths + Levels
in the downstream floodplain"

we already get back-flow
from culvert #39.2 under
Abel Tasman Drive

3) There are proposed 54 more house sites, which when developed will create more "hard surfaces" from RoWs, drives, concrete, tarseal, pathways, etc.

All of the hard surface storm water is to flow into Drains 1 & 2. ~~Most to~~ Drain 1 will take the majority.

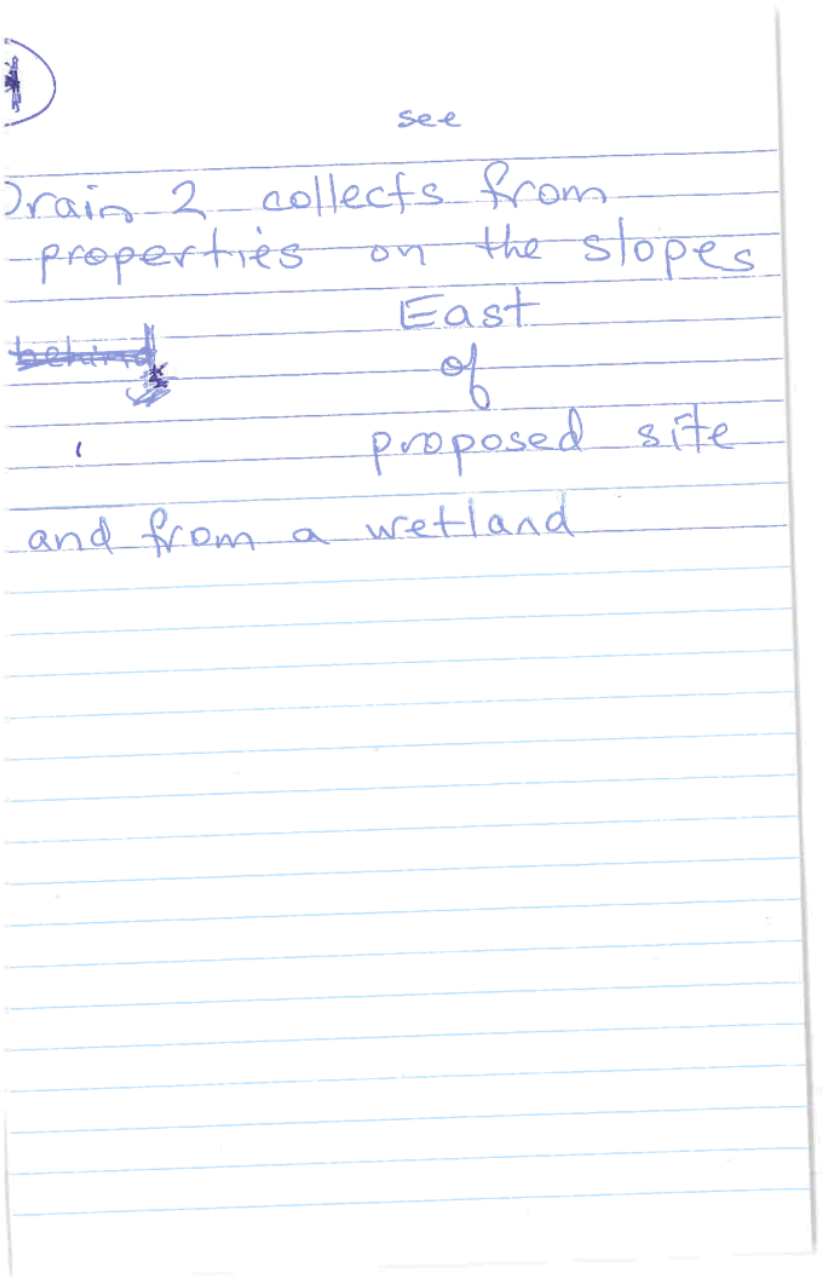


@ Drain 1 is a CREEK:

Drain 1 collects from

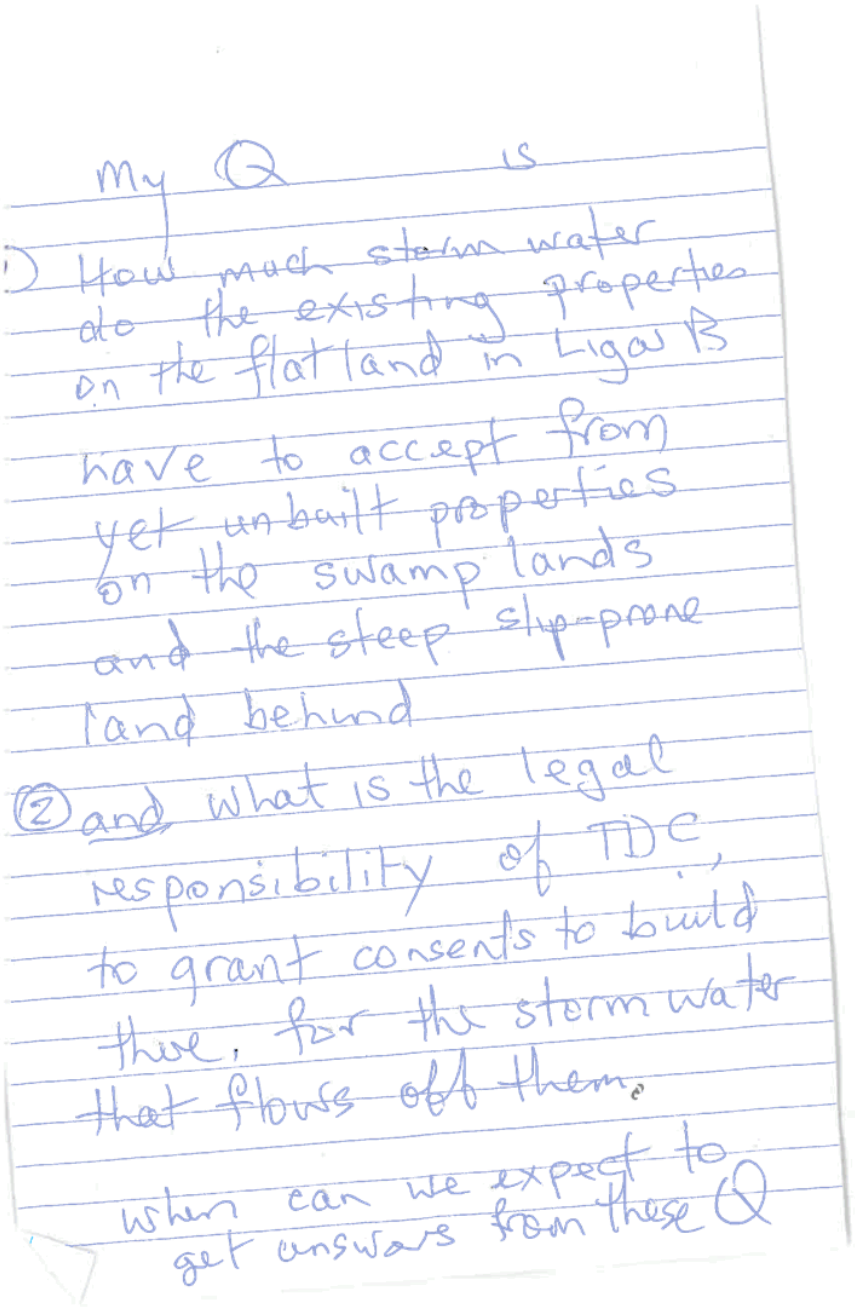
- the whole catchment area including
  Matenga Rd over-land
  -flows
- 5 other creeks running into it
- 11-plus springs " " "
- .... other drains
- other ditches
- ponds
- Lifestyle blocks above proposed site

Drain 1 used to have an overflow area ~~[illegible]~~ above the site on 33 Matenga Rd



see

Drain 2 collects from properties on the slopes East of proposed site and from a wetland

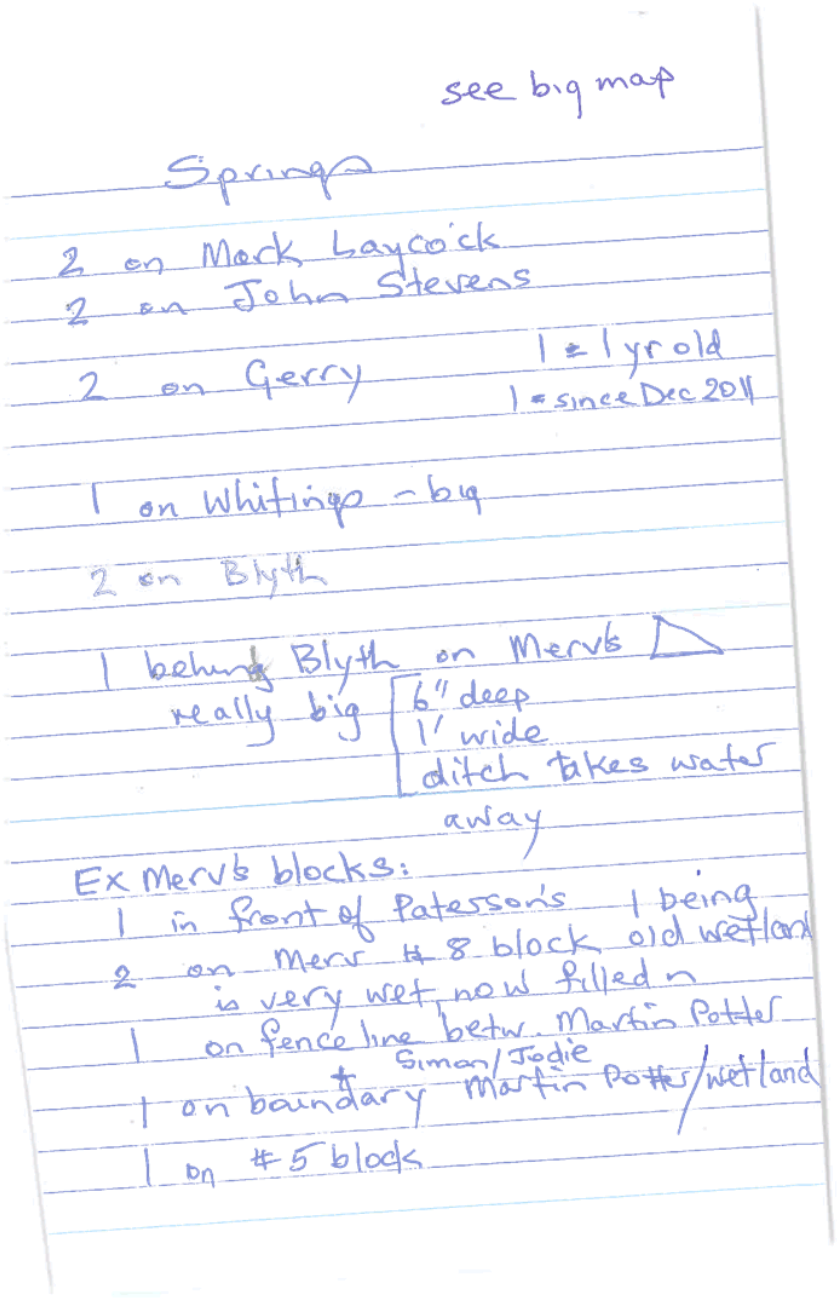


My Q is

1) How much ~~storm~~ water do the existing properties on the flat land in Ligar B have to accept from yet unbuilt properties on the swamp lands and the steep slip-prone land behind

2) and what is the legal responsibility of TDC, to grant consents to build there, for the storm water that flows off them.

When can we expect to get answers from these Q



see big map

Springs

2 on Mark Laycock
2 on John Stevens

2 on Gerry — 1 = 1 yr old
1 = since Dec 2011

1 on Whitinga - big

2 on Blyth

1 behind Blyth on Mervs
really big
- 6" deep
- 1' wide
- ditch takes water away

Ex Mervs blocks:
1 in front of Patersons 1 being
2 on Merv # 8 block old wetland
is very wet, now filled in
1 on fence line betw. Martin Potter
1 on boundary Simon/Jodie Martin Potts/wetland
1 on #5 blocks

John Hall
1094 Abel Tasman Dr.
Ligar Bay.

1 of 3 owners
Owned property 19 years
Used/rented bach 10-15 yrs prior to purchase

Has maintained property (land + house) for over 30 years

Bach built in early cement works days.

REPORT

Tonkin+Taylor

# Stormwater Assessment for Ligar Bay Subdivision

**Prepared for**
Ligar Bay Developments Ltd
**Prepared by**
Tonkin & Taylor Ltd
**Date**
March 2018
**Job Number**
1002053.v3

*Exceptional thinking together*
www.tonkintaylor.co.nz

## Document Control

| Title: Stormwater Assessment for Ligar Bay Subdivision | | | | | |
|---|---|---|---|---|---|
| **Date** | **Version** | **Description** | **Prepared by:** | **Reviewed by:** | **Authorised by:** |
| 24/08/17 | 1 | First issue | A Evans | D Velluppillai | M Foley |
| 07/09/17 | 2 | Updated plans in Appendix A | A Evans | D Velluppillai | M Foley |
| 08/03/18 | 3 | Including on-site detention | A Evans | D Velluppillai | M Foley |
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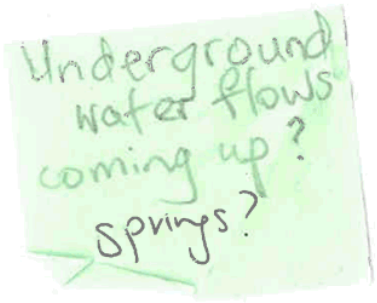



**Distribution:**

| | |
|---|---|
| Ligar Bay Developments Ltd | PDF |
| Planscapes Ltd | PDF |
| Tonkin & Taylor Ltd (FILE) | PDF |

## Table of contents

## 1 Introduction

This report sets out the details and findings of our assessment of the effects relating to stormwater of the proposed Ligar Bay Subdivision on Matenga Road in Ligar Bay, Golden Bay.

The subdivision layout has been provided to us in the following form (refer Appendix A):

- Planscapes (NZ) Ltd plan titled "Resource Consent Application Plan" Revision B, dated March 2018;
- Planscapes (NZ) Ltd plan titled "Typical Cross Sections" Revision B, dated November 2017;
- Planscapes (NZ) Ltd plan titled "Indicative Stormwater Reticulation" Revision C, dated March 2018.

We have undertaken this work in accordance with the terms and conditions of our Letter of Engagement dated 16 February 2017.

## 2 Proposed development

The site is located on undeveloped and gently sloping residential zoned land that drains in a generally northeast direction towards Ligar Bay. A number of existing watercourses including a stormwater diversion drain are located within the property. This assessment focuses on the likely effects of the development on stormwater flows and overland flowpaths, and makes recommendations on how these effects can be mitigated.

## 3 Design standards

The assessment of effects on stormwater has been carried out in accordance with the TDC Engineering Standards and Policies 2013 (ES2013).

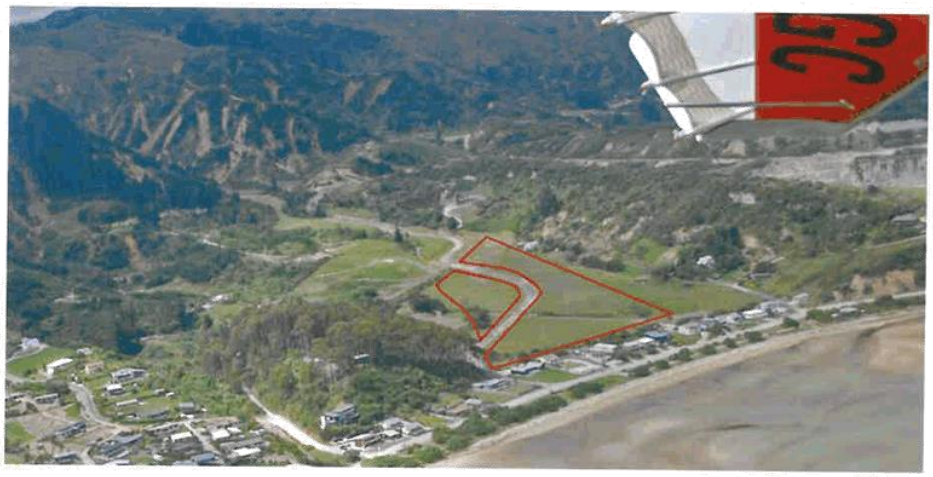
## 4 December 2011 flood event

In December 2011, a large-scale storm system generated extreme rainfall depths across Golden Bay. Depths of up to 600 mm were recorded over a 48 hour period. There were no rainfall gauges in Ligar Bay to measure site-specific rainfall, but the TDC hydrology department estimated an event return period in some catchments of up to 1 in 500 years.

The event caused widespread damage across Golden Bay including Ligar Bay. Much of the damage resulted from secondary effects of the rainfall event, i.e. slope instability and debris flows.

The hill catchment above Matenga Road received significant rainfall over a sustained period, and resulted in a large number of slips, and generated a significant volume of debris and gravels that were deposited in the lower catchment. The movement of this material caused scour of watercourses and damaged road surfaces. A selection of photographs taken two days after the event in Ligar Bay are shown below.

While the severity of the December 2011 event may have been beyond what is required to be designed for in the ES2013, the event is instructive in terms of confirming overland flowpaths and highlighting that there is flood hazard in this catchment. It also makes clear that the damage mechanisms in storms that may affect this catchment are not just hydrological, but related also to secondary effects.



*Photograph 4-1: Oblique of the site and hill catchments above showing heavy scarring which generated material that deposited in the lower catchment. Approx. site boundary shown in red. Photo courtesy of TDC.*

*Photograph 4-2: Damage to and deposition on Nyhane Drive West off Matenga Road above application site (photo courtesy of TDC).*

*Photograph 4-3: Deposition of debris in channel and on Matenga Road, application site shown beyond.*

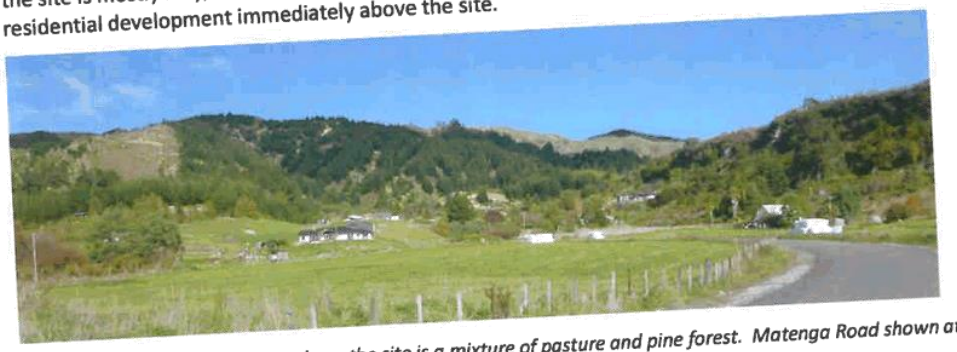
*Photograph 4-4: Damage to the Matenga Road carriageway, evidence of the carriageway acting as a major overland flowpath during this event.*

*Photograph 4-5: Scour in excess of 1 m depth in roadside drains along Matenga Road.*

## 5 Existing Site

### 5.1 Catchment characteristics

As shown on the Planscapes Plan "Resource Consent Application Plan" in Appendix A, the existing catchment drains through two main open channel drains that flow through the site, before they discharge to a culvert under Abel Tasman Drive that discharges into Ligar Bay. The site itself is currently undeveloped, and at the time of our site visit was covered in pasture. The catchment to the site is mostly hilly, and covered in a mixture of pasture and pine forest, with low density residential development immediately above the site.



*Photograph 5-6: Hill catchment above the site is a mixture of pasture and pine forest. Matenga Road shown at bottom right of photograph.*

There are no known hydrological gauge stations (rainfall or flow) within the catchment.

## 6 Hydrological assessment

A hydrological assessment has been undertaken to assess the likely effect of the proposed subdivision on stormwater flow rates, duration and volumes.

Motupipi rainfall is not Ligar

## 6.1 Methodology

The TDC Engineering Standards 2013 (ES2013) sets out the Rational Method for flow estimation. Given the lack of site-specific hydrological data, arange of commonly used hydrological methods for estimating peak flows were compared in order to establish peak flows to be used for further assessment and design:

1 Rational method as per TDC Engineering Standards 2013 (ES2013);
2 SCS 1986 loss method with SCS transform and SCS type 1A storm profile;
3 SCS 1986 loss method with SCS transform and frequency storm developed from HIRDS v3 data;
4 Auckland Council's Technical Publication 108: Guidelines for Stormwater Runoff Modelling in the Auckland Region, 1999 (TP108) – an Auckland-specific implementation of SCS 1986;
5 Flood Frequency in New Zealand, McKerchar and Pearson, 1989.

Two development scenarios were modelled for each catchment:

1 Pre-development – existing land use and flowpaths;
2 Post-development – proposed land use and flowpaths within the site after the development, and assuming existing development elsewhere in the catchment.

## 6.2 Catchments

### 6.2.1 General

Refer T+T Figure B1 in Appendix B for catchment boundaries. The catchment boundary was delineated from LiDAR and contour data provided by TDC, and confirmed by observations made on-site. The total existing catchment area is assessed as being 82.4 ha.

### 6.2.2 Runoff potential

The current land cover on the application site is predominately pasture. The upper catchment is a mixture of pasture and shrubland/forest. For the purpose of assessing runoff using the SCS 1986 and TP108 methods, local soils have been categorised as having soakage characteristics that fall into Class B and C of the United States Soil Conservation Service (USSCS) soil classification system. These are classes that apply to moderately draining soils. Refer to Appendix C for details on the classification, which uses the NZ Land Resource Inventory (LRI) database for soil types and parameters. The runoff coefficient used for runoff from pasture is 0.4, and for shrubland/forest is 0.35, which the TDC ES 2013 recommends for use in pasture-covered heavy clay soils (0.25 in more free-draining Hydrological Soil Class B soils).

In TDC's RFI, a query was raised as to the effect of any intensification of the upstream development. Catchment flows to the subdivision have been assessed based on existing planning zones, and an assumed future development density within residential zones equivalent to the density of the current proposal. We note that this is significantly denser (smaller lot sizes) than existing upstream residential development, and therefore allows for a degree of intensification. In accordance with the requirements of the Resource Management Act (RMA) and TDC Engineering Standards and Policies 2013, any further development or intensification of development upstream of the application site will be required to achieve hydraulic neutrality at the point where runoff flows enter the application site (i.e. no increase in peak flows, or flowpaths onto the site).

The undeveloped part of the existing catchment is a combination of pasture and forest, with the forested portion being made up of both exotic and regenerating native forest. Even if the entire forested area (exotic and native forest) was converted to pasture, the effect on peak 1% AEP flows is

expected to be an approximately 10% increase at the bottom of the catchment. This is a hypothetical and unlikely scenario. Modelling of the downstream watercourses indicates that the impact of increasing peak flows by a hypothetical 10% is to raise water levels within the drains, but not to a degree that uses up all available freeboard. In other words, in the unlikely scenario that all areas in forest/scrub were converted to pasture, the freeboard to be provided in the drains serving the proposed development and upstream catchment can accommodate the effects of significant deforestation within the catchment. For the post-development case, proposed lots were assumed to be approximately 40% impervious. This assumption is based on the SCS curve number tables for residential districts by average lot size. Table 6.1 summarises the values used in the assessment.

**Table 6.1: Curve numbers (CNs) and runoff coefficients**

| Soil name and classification | Cover description (cover type, treatment, and hydrologic condition) | Curve Number CN | Runoff coefficient C | Pre-development area (ha) | Post-development area (ha) |
|---|---|---|---|---|---|
| Class B soils | Pasture (Fair Condition) | 61 | 0.3 | 3.66 | 3.66 |
| Class C soils | Pasture (Fair Condition) | 74 | 0.4 | 26.26 | 22.88 |
| Class C soils | Shrub-land (Fair Condition) | 48 | 0.25 | 0.04 | 0.04 |
| Class B soils | Forest (Fair Condition) | 55 | 0.25 | 4.32 | 4.32 |
| Class C soils | Forest (Fair Condition) | 70 | 0.35 | 47.25 | 47.25 |
| Class C soils | Residential district 1/4 acre size | 83 | 0.76 | 0.87 | 4.24 |
| n/a | Asphalt and concrete | 98 | 0.85 | | |
| | | | Total | 82.39 | 82.39 |

## 6.3 Times of concentration

A number of commonly used methods for calculating the times of concentration was considered (refer Appendix C). A catchment's time of concentration is the time needed for water to flow from the most remote point in a catchment to the catchment outlet. It is a function of topography, geology and land use within a catchment. As is typically the case, the various methods resulted in a range of estimated times of concentration. Table 6.2 provides a summary of the values selected for the assessment.

**Table 6.2: Time of concentration for the whole catchment**

| Method | Estimated Time of Concentration (mins) |
|---|---|
| E1/VM1 | 31 |
| USDA | 29 |
| Bransby Williams | 39 |
| TP108 | 37 |
| USSCS | 13 |
| **Selected for design** | **30** |

For the purpose of sizing on site storage devices, individual lots were assumed to have times of concentration of ten minutes. This is in accordance with the ES2013 which stipulates consideration of a minimum time of concentration of ten minutes for small catchments.

## 6.4 Design rainfall

NIWA's High Intensity Rainfall Design System (HIRDS) v3 data was used to determine the design rainfall intensities as recommended in the ES2013. Rainfall events were analysed for the present day 1% Annual Exceedance Probability (AEP) storm events. Based on Ministry for the Environment (MfE) guidance, the ES2013 notes that what is defined as the present 1% AEP storm is expected to degrade to an approximately 2% AEP by 2100, allowing for anticipated temperature rise and consequent increase in rainfall intensities by 2100.

## 6.5 Peak flow estimates

A comparison of the peak flow estimates derived from the five different methods being considered is presented in Table 6.3 below.

**Table 6.3: Comparison of 1% AEP pre-development peak flow estimates**

| Method of estimation | Peak 1% AEP flow estimate ($m^3/s$) at Abel Tasman Drive culvert |
|---|---|
| Rational method | 7.5 |
| SCS 1986 (Type 1A Storm) | 15.0 |
| SCS 1986 (HIRDS Frequency Storm) | 17.8 |
| TP108 (using nested rainfall as per **Error! Reference source not found.**) | 29.6 |
| Flood Frequency in NZ | 6.4 |

1% = 1 in 100
2% = 1 in 50.

As shown in Table 6.3, the peak flow estimates range from 6.4 to 29.6 $m^3/s$ for the 1% AEP event. The Flood Frequency in NZ method is considered the coarsest of the five methods, and typically yields flows less than estimated by other methods. It was noted that in the methods using a 24 hour nested temporal storm profile (SCS and TP108), initial abstractions and losses are used up in the early part of the storm, so that by the time the peak of the rainfall event hit the catchment, the catchment was already saturated and yielded a high runoff. However, the Rational method was selected as the basis for design as:

- It yields the greatest difference between pre and post development flows, and is therefore the most conservative with respect to attenuation requirements;
- It is recommended for use in the TDC ES2013.

## 6.6 Hydrological modelling assessment

Comparison between the pre-development and post-development scenarios, using Rational method, was undertaken to assess the change in peak flows and runoff volumes generated due to the development, prior to any mitigation. A summary of unattenuated peak flows is presented in Table 6.4, and indicates an expected increase due to development (before mitigation) of 5%. Refer to Appendix C for more detailed calculations.

**Table 6.4: Hydrological modelling results – 1% AEP peak flow**

| | Unit | 1% AEP peak flow |
|---|---|---|
| Pre-development | $m^3/s$ | 7.5 |
| Post-development | $m^3/s$ | 7.9 |
| Change | $m^3/s$ | +0.4 |
| | % | +5% |

## 7 Downstream environment

The site discharges via Drain 1 and Drain 2 into a drain that runs along the back of existing residential property (refer Photograph 7-8 below). Modelling indicates that this drain is undersized for the 1% AEP event, and flooding is likely either side of the drain during this event for both pre- and post-development scenarios (refer Figure B2 for the pre-development scenario).

The outlet drain runs between 1094 and 1096 Abel Tasman Drive before discharging under the road through twin 1200 mm diameter culverts. At the time of our inspection, the tide was low but tailwater conditions at the culvert (controlled by dunes) were such that the culverts were almost completely full of water (refer Photograph 7-8 below). Thus, modelling predicts that 1% AEP flows are likely to spill over Abel Tasman Drive outside 1094 and 1096 Abel Tasman Drive in the existing situation. We note that these two properties are also predicted to be flooded in a "sunny day" (i.e. no rainfall) MHWS tide event in 2100, assuming 1 m of sea level rise over present day levels.

*Photograph 7-7: Outlet channel at downstream end of site, running along the back of existing residential property.*

*Photograph 7-8: Twin 1200 mm diameter culverts under Abel Tasman Drive downstream of site (looking upstream). Water level controlled by downstream dunes; photo taken at low tide.*

## 8 Assessment of existing flood hazard

A hydraulic model of the catchment area was developed to inform our study. The model is a coupled one-dimensional / two dimensional (1D/2D) model built using DHI Software's MikeFlood. Flows from the upstream catchments are calculated using the Rational method as described above, and applied to the model above the application site as a constant inflow. This simulates the way flows would move through the site during the peak of the storm event, assuming the duration of the peak flow exceeded the travel time through the site. Given the relatively small size of the site

compared with the contributing catchment, this assumption was not considered unduly conservative, and avoids the need for assessing a typical hydrograph shape for this catchment.

A dynamic tidal boundary with a peak tide level of RL 3.26 m was used as the modelled tailwater. This peak tide level is the approximate value of MHWS in Ligar Bay plus one metre to allow for the effects of sea level rise by 2100, and is the same value that has been used by TDC in flood modelling in the Pohara floodplain to the west.

Cross sectional details of the existing drains were developed from survey information provided by Planscapes on 03 November 2017 for use in the model.

The results of the flood modelling are shown on T+T Figure B2 in Appendix B.

The modelling results indicate that the Matenga Road carriageway is likely to act as the major overland flowpath. This is confirmed by photographs and observations taken immediately after the December 2011 storm event, during which the Matenga Road carriageway and table drains suffered damage. The modelling indicates that the upper part of the site to the west of Matenga Road is higher than the road, and not likely to receive outbreak flows off the road from the upper catchment. It also indicates that the lower part of the site, including existing Abel Tasman Drive properties, is flood-prone, and this hazard will need to be considered in the development of these lower lots in terms of developable areas and minimum ground and floor levels.

# 9 Stormwater design

## 9.1 General

The ES2013 requires consideration of the downstream effects of any change within a catchment on stormwater flows. The primary anticipated effect of converting pasture to residential development including roofs, roads, driveways and other impervious surfaces is to increase the peak runoff from the site. The likely effects of the current development proposal on flows is summarised in Table 6.4 above, which notes a 5% increase in peak flows from the overall catchment to the Abel Tasman Drive in the present day 1% AEP event.

In situations where increased flows may result in (or exacerbate) downstream flooding and/or erosion and/or water quality issues, the ES2013 requires mitigation of this effect in all events up to the present day 1% AEP event. It is proposed to achieve this through the use of appropriately sized and maintained stormwater attenuation tanks on each lot.

## 9.2 Detention tank design

Stormwater detention tanks typically provide storage and controlled release of runoff close to where that runoff is generated, in order to reduce runoff rates that might otherwise be experienced from the site. They are typically used in development areas where downstream system capacity is limited, and/or where there is the potential for downstream flooding. For this subdivision, tanks on each lot are to be used to mitigate the effects of the subdivision on downstream flooding in up to the 1% AEP event. The critical design parameters are the tank volume and the outlet orifice size, which are sized to store and release runoff at a controlled rate

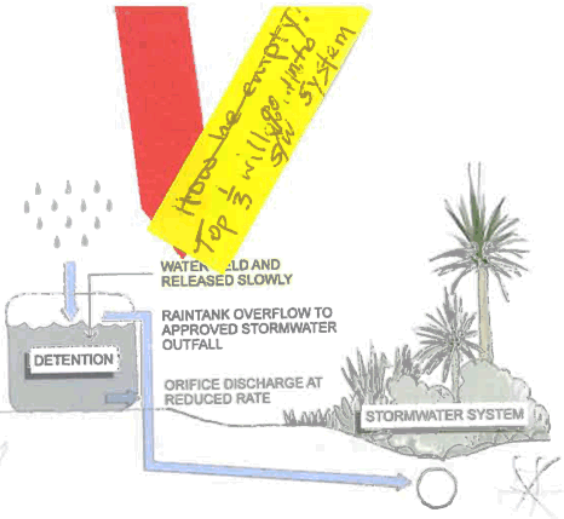



*Figure 9.1: Schematic of the function of a stormwater detention tank (courtesy Hamilton City Council)*

### 9.2.1 Design methodology

In order to size tanks for individual lots, the following tasks were carried out and assumptions made:

- Assume the tanks are required to attenuate flows in up to the 1% AEP event;
- Assume a time of concentration for each lot of 10 minutes;
- In order to determine the worst case (i.e. maximum storage volumes) it is necessary to consider a range of storm durations from 10 minutes to 2 hours;
- The rainfall intensity is assumed to be uniform throughout the duration of the storm. The flow is assumed to increase to a peak flow at the time of concentration and then continue at the peak flow for the duration of the rainfall before decreasing to zero flow at the time of concentration beyond the rainfall duration (method in accordance with NZ Water and Environment Research Foundation On–Site Stormwater Management Guideline);
- Consider a range of lot coverage options up to 550 m² of impervious area. It is anticipated that most lots will be developed less intensively than this (i.e. smaller total impervious are). It is assumed that roof area only will be captured into each tank, and that flows from the remainder of each lot and from other impervious surfaces within the subdivision (rights of way) will bypass the tanks. Tanks and orifices are sized to provide additional attenuation that will offset runoff from areas that cannot be captured and attenuated. Three typical lot coverages have been assessed as follows:
  - **350 m²** of impervious coverage, of which **200 m²** is captured roof area, and allowing for an additional **100 m²** of impervious lot area and **50 m²** of communal subdivision impervious surface area outside the lot;
  - **450 m²** of impervious coverage, of which **300 m²** is captured roof area, and allowing for an additional **100 m²** of impervious lot area and **50 m²** of communal subdivision impervious surface area outside the lot;
  - **550 m²** of impervious coverage, of which **400 m²** is captured roof area, and allowing for an additional **100 m²** of impervious lot area and **50 m²** of communal subdivision impervious surface area outside the lot.
- It is proposed that future owners will install a storage tank above ground, or partially buried, in each lot. This will require a consent notice on the title. Each storage tank would receive flows from the property roof. The final tank sizing and location on each lot is subject to how the future owners develop each lot and platform area. Responsibility for the installation and future maintenance and upkeep for the tanks would lie clearly with each lot owner;

- Tanks are sized so that the peak pos-development flows do not exceed pre-development flows across the range of storum durations.

### 9.2.2 Design attenuation requirements

Based on the results of tank routing calculations, we recommend tank design parameters as summarised in Table 9.1 below. It is noted that these values will work for the typical case where the above assumptions are met. Actual attenuation characteristics are likely to vary from lot to lot, but the overall subdivision is expected to deliver an attenuation of peak flows in events up to the 1% AEP based on the use of tanks in individual lots. The developer has advised that the subdivision will be staged so as to minimise the construction of rights of way provided before lots are sold and developed to provide attenuation for these communal surfaces. We note that the development is based on a relatively low proportion of impervious areas outside of individual lots, and any interim increase in runoff potential is likely to be low.

**Table 9.1: Tank design parameters**

| Typical lot characteristics | Orifice diameter required | Tank volume required |
|---|---|---|
| Up to 200 m² of captured roof area and 100 m² of non captured impervious area | 30 mm | 40 litres per m² of captured impervious area |
| 200 to 300 m² roof area and 100 m² of non captured impervious area | 35 mm | |
| 300 to 400 m² roof area and 100 m² of non captured impervious area | 40 mm | |
| > 400 m² roof area | Specific design required | |

These values, based on typical lot development assumptions, are provided in order to simplify the tank selection process for individual lot owners. We recommend that consent conditions allow for individual lot owners to carry out specific design if they would prefer. For example, an individual lot owner may be able to provide an underground tank design option that increases the capture of impervious runoff from the site (i.e. not just roof but driveway and other impervious areas), or propose less than 100 m² of impervious area.

Due to the number of lot arrangements and storm durations considered, and the size of each routing spreadsheet, these have not been appended to this report. Routing spreadsheets are available upon request.

Limiting peak flows to pre-development levels in this way is expected to ensure that the existing flood issues in the downstream environment are not exacerbated as a result of this subdivision during the required design flood events.

### 9.2.3 Detailed tank arrangements

The calculations above show the volumes required for flow attenuation only. It is noted that if larger tanks were installed on each lot to allow for rainwater harvesting then there may be additional buffer storage on each tank until the rain harvesting volume is full (i.e. the rain harvesting volume will not always be full at the start of the storm).

Final tank and orifice sizing and arrangements for overflows, inlets, screens to avoid orifice blockage, etc. should be provided by the owners at Building Consent stage.

Where it is practical and topography allows, underground storage tanks may be considered instead of above ground tanks. This may negate or at least offset the need for above ground tanks, and may enable capture of runoff from non-roof pervious surfaces.

Connections should be made from all tanks (including overflows) to a reticulated system. The reticulation system (designed by others) should be sized to accommodate all tank outflows from this stage.

We recommend that a consent notice be placed on each title to ensure that the future owners install stormwater attenuation tanks.

We recommend the following conditions are included in the subdivision consent:

*The tank detention volume shall be confirmed at Building Consent Stage based on the final roof and impervious areas in each Lot. The detention volumes and tank sizes shall be confirmed on the following basis:-*

a *40 litres of detention storage per $m^2$ of impervious area shall be provided;*

b *The outlet from the detention tank shall have a*
- *30 mm diameter orifice (for captured impervious area up to 200 $m^2$);*
- *35 mm diameter orifice (for captured impervious area up to 300 $m^2$);*
- *40 mm diameter orifice (for captured impervious area up to 400 $m^2$);*

c *If remaining (uncaptured) impervious area on the lot exceeds 100 $m^2$, specific design is required to limit post-developed flows to predevelopment levels;*

d *The size of storage in each tank shall be based on the area drained to each tank and the 40 l storage per $m^2$ and orifice sizing above.*

e *Tanks shall be provided with inlet screening, outlet arrangements and maintenance access to prevent entry of debris and blockage of the orifice.*

f *Tanks shall be provided with an overflow in the event that the tanks become full.*

g *Additional volume be provided in the tank for rainwater harvesting if desired by the owner. This volume shall be in addition to the detention volume.*

## 9.3 Existing watercourses

There are two existing drains running through the site. Refer Figure 9.2 below. One drain (Drain 1) runs approximately south-east to north-west and is culverted under Matenga Road (twin 1050 mm diameter), approximately halfway up the site. The alignment of the drain appears to have been man-made, with straight segments and a right-angle bend immediately above the site.

The second drain (Drain 2) picks up flows from the east of the site via a culvert under Matenga Road (and likely flows over Matenga Road at this point during extreme events), and conveys them along the northern boundary of the site towards the site outlet at the northwest. The two drains meet at a confluence at the downstream end of the property; no specific measurements of the downstream channel have been made.

- **Drain 1**: A drain with a bottom width of 1.5 m, side slopes of 1H:3V and a depth of 1.4 m would provide 0.5 m freeboard for the design 1% AEP flow to the drain of 5.1 $m^3/s$. Drain 1 currently exceeds these dimensions (except in the lower 30 m where the drain is only 1 m deep). Drain 1 is typically trapezoidal in shape, with a longitudinal slope of 1-2%. Bottom width varies approximately 1-1.5 m and side slopes vary between 1V:3H to 1V:5H. Drain depth in the upper reach is approximately 2 m, and typically over 1.6 m except at the bottom end. The mean annual flow of 2 $m^3/s$ is conveyed with a flow width between 2.4 and 2.8 m. The 1% AEP flow of 5.1 $m^3/s$ is conveyed with a freeboard of over 0.5 m as required by the

TDC ES2013, except at the downstream end where the channel is less incised. In the development of final ground levels, we recommend that ground levels over the lower 30 m of the drain are raised by approximately 0.4 m to achieve the required 0.5 m freeboard to the 1% AEP event. The drain side slopes are also over-steep in places (i.e. side slopes exceeding 1H:3V), and we recommend that this is investigated further during detailed design, including identification of areas where remediation to more stable side slopes is considered.

- **Drain 2** is also typically trapezoidal in shape, though with a lower typical maximum flow depth, before overtopping, of 1 m. Flood modelling indicates that the drain does not have capacity for the 1% AEP event in either the pre- or post-development scenarios, and overbank flooding is expected. This is confirmed by anecdotal evidence that suggests frequent flooding in the low lying areas in the vicinity of this drain.

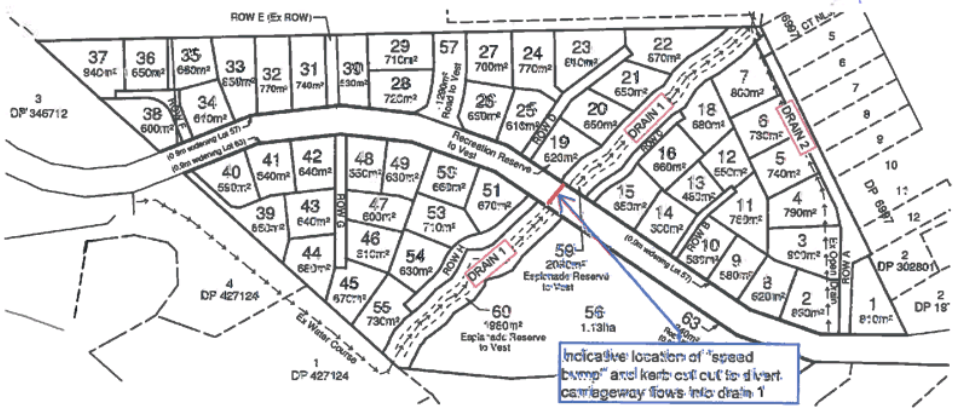



*Figure 9.2: Proposed diversion of flows through the site*

As well as resulting in an increase in stormwater runoff (to be mitigated through on-site detention tanks, as described above), the development is expected to change the way flows are conveyed through the site. In the existing case, the Matenga Road carriageway carries significant flows during extreme events, as observed during the December 2011 storm event. It is proposed to intercept these carriageway flows through the use of road regrading or a traffic speed bump (or similar) midway through the site. This would divert carriageway flows into Drain 1, and would result in a reduction of flows into the existing Drain 2 at the bottom of the site.

It is proposed to widen the existing Drain 1 as shown on Planscapes Plan "Typical Cross Sections" in Appendix A to formalise the channel within an esplanade reserve, and to provide maintenance access. The proposed cross section increases the channel capacity, and will provide a minimum 0.5 m of freeboard between the 1% AEP water level and adjacent building platforms. Final lot levels are to be determined during detailed design.

It is proposed to convey 5% AEP (1 in 20 year) flows in Drain 2 in a new pipe, as shown on Planscapes plan titled "Indicative Stormwater Reticulation" in Appendix A. An overland flowpath for flows exceeding the capacity of the pipe would be provided along the right of way. This new pipe would take flows at the upstream end from the two existing Matenga Road culverts, and discharge flows into an open channel 3-5 m upstream of the confluence with Drain 1. Additional flows from the subdivision are to be connected into the pipe as location and gravity permit. It may also be possible to provide connection points for existing Abel Tasman Drive properties which do not currently drain to a reticulated network, providing a benefit in primary flow events to these properties. Preliminary calculations indicate that a 900 mm diameter pipe is likely to be sufficient, depending on the

location and number of inflows, and pending detailed design of Drain 1 and the fill platform around the end of Drain 1 that will affect the design 5% AEP tailwater level for the pipe. The right of way (RoW) along the north edge of Lots 2-7 will include provision for overland flows in excess of the 5% AEP event to be directed into the end of Drain 1 at the downstream (western) end.

Where there are points of concentrated discharge from the development, i.e. outlets into streams, we recommend that these be individually assessed and provided with appropriate erosion protection as required.

## 9.4 Flood hazard mitigation

This assessment includes consideration of flood hazard to the proposed lots and to other property in the floodplain as a result of the proposed development.

The developer proposes to constrain flooding to drains and road carriageways. This is to be achieved by ensuring that final ground levels and drain/carriageway dimensions are sufficient to prevent any stream outbreak flows from inundating new lots. In practice, this could be achieved either by raising ground levels across all parts of the developed site shown to be flood-prone, or by bunding along the upstream edge of the lots to protect development and force overland flowpaths either onto road carriageways or back into drains. It is proposed to contour fill platforms and provide graded rights of way to meet TDC Engineering Standards for overland flowpaths from developed land into receiving watercourses during extreme flow events, without creating flood hazard on proposed lots.

In order to check potential maximum effect of any site development, a model was developed in which the full development property was raised above the level of adjacent overland flowpaths. Modelling shows that in this scenario, 1% AEP flows from the upstream catchment can be contained within the road carriageway and drains, and the effect of the loss of floodplain storage in the lower floodplain due to any site filling is negligible (less than 10 mm) in terms of flood depths/levels on downstream property. This is due largely to three mitigating factors:

- The provision of on-site detention tanks attenuate and delay peak flows from individual lots;
- The interception of Matenga Road carriageway flows into Drain 1 reduces the anticipated flows within existing Drain 2, and thereby reduces flood hazard to the back of most of the Abel Tasman Drive properties;
- The piping of 5% AEP flows along the alignment of existing Drain 2 reduces further the overland flows in more extreme events that could lead to inundation.

## 10 Water quality considerations

The proposed subdivision drains into open drains (Drains 1 and 2) and then through twin culverts under Abel Tasman Drive and directly to the coast. The effects of the development are expected to be a significant reduction in effluent loading of the watercourses, with grazed areas being converted to residential development. There is likely to be an increase in contaminant discharge typically associated with residential development. However, the developed area is approximately 4% of the total catchment and close to the coast so the effects of contaminants on the downstream system are expected to be low.

The developer has discussed the proposed piping of Drain 2 flows with TDC's ecologist, who has agreed with the approach being taken; i.e. to pipe Drain 2 which is of low ecological value, and seek to enhance the ecological value of Drain 1 and the Drain 2 (pipe) overflow (right of way) instead.

The developer proposes to include riparian and bank planting within these Drain 1 to increase the ecological value of the waterways, and to provide habitat and some filtration of stormwater runoff for low flows. No further mitigation is proposed.

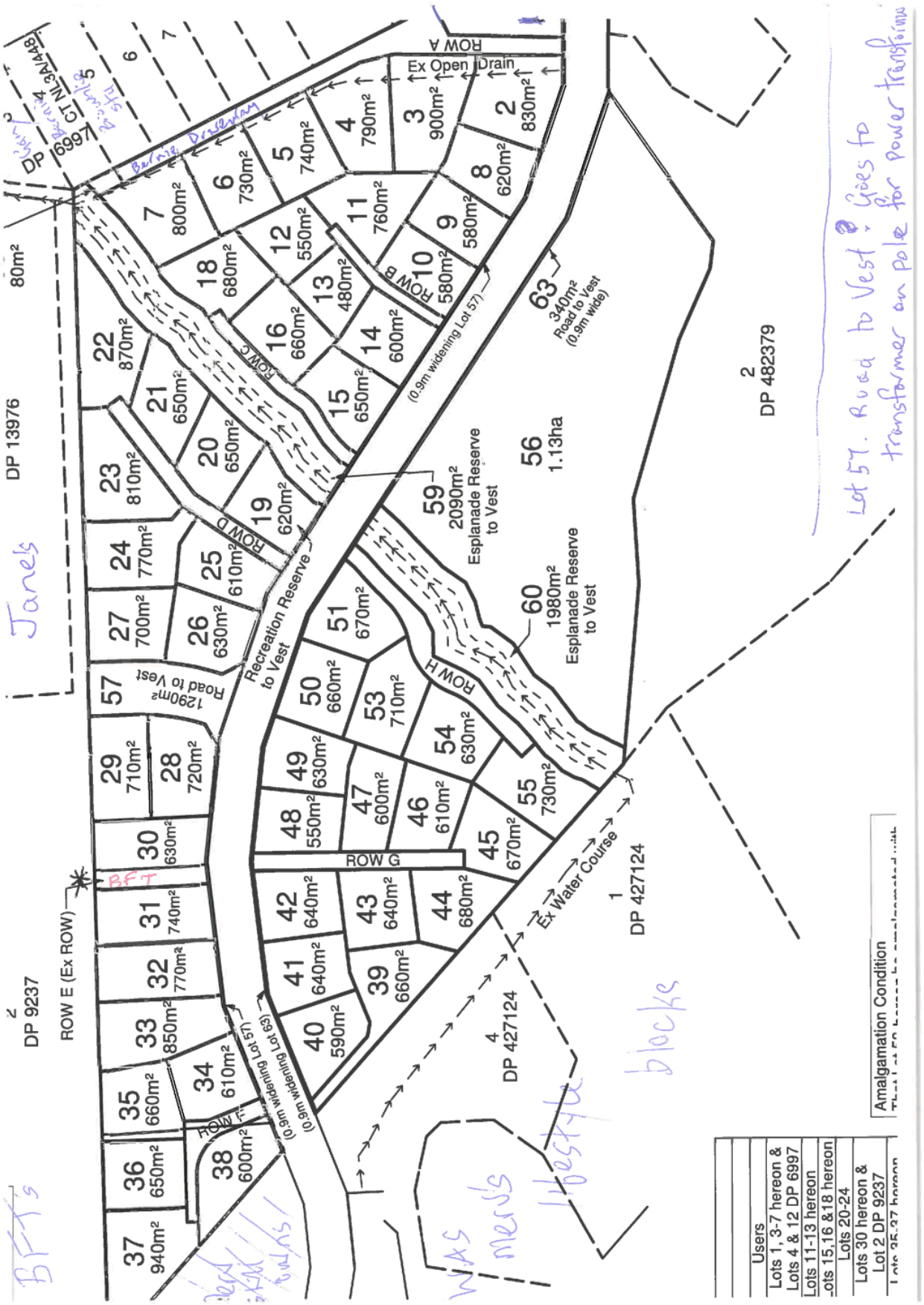
## 11 Conclusions and recommendations

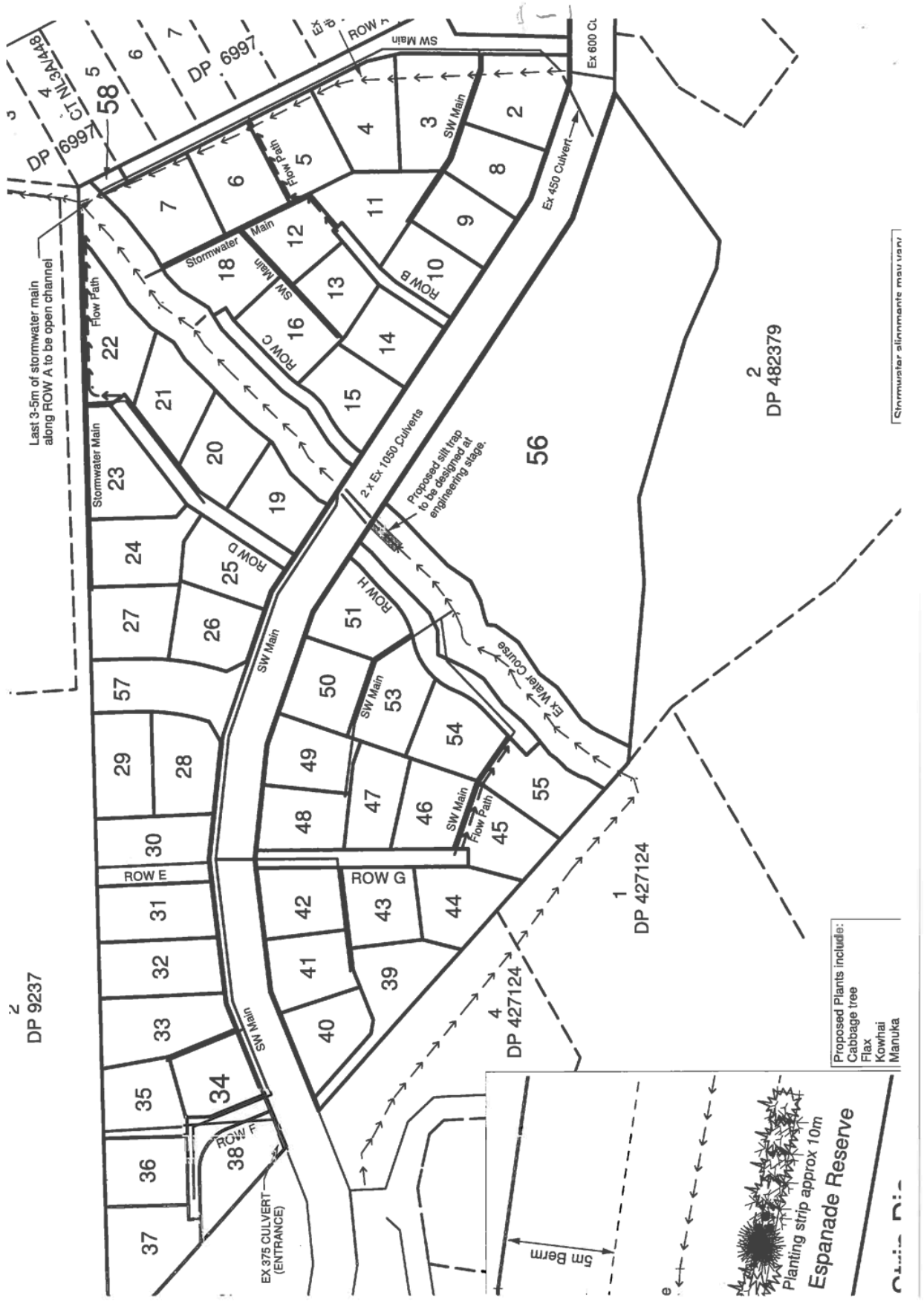
We have assessed stormwater detention requirements for the Ligar Bay subdivision. Our conclusions and recommendations follow:

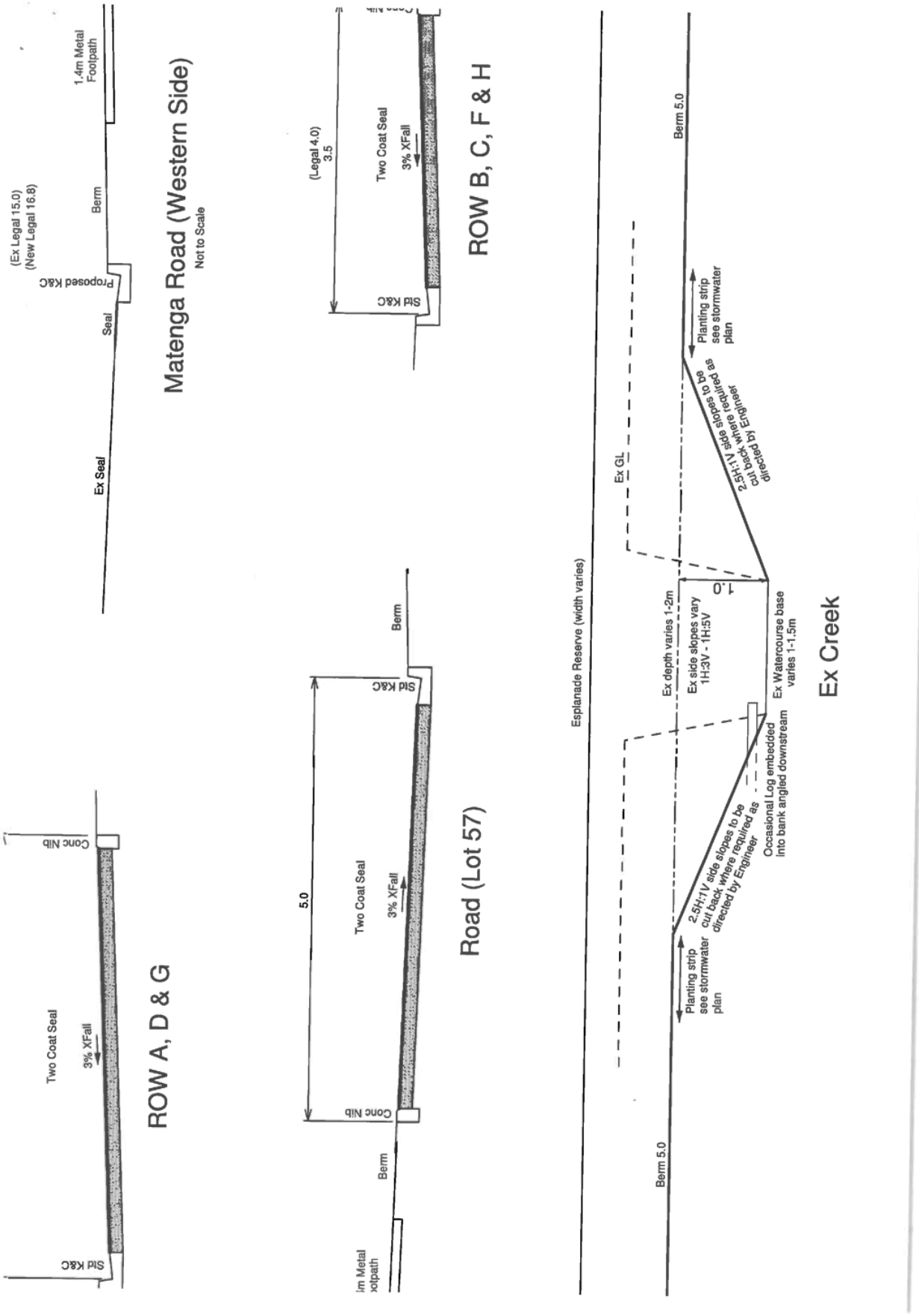
- There are existing capacity issues in the downstream network, including:
  - Limited capacity provided by the twin culverts under Abel Tasman Drive, expected to reduce further with anticipated rising sea levels;
  - Limited stormwater reticulation, with drainage from dwellings on most existing Abel Tasman Drive properties discharging to ground;
  - The factors above contributes to modelled flooding within downstream property during a 1% AEP event (and likely in more frequent events, though these have not been modelled);
- As evidenced in December 2011, the upper catchment can result in large flows arriving at the site via the Matenga Road carriageway. This is particularly true in the event that upstream culverts become blocked, as they did in December 2011;
- Without any mitigation, the proposed development is expected to increase 1% AEP flood flows by 5% from 7.4 to 7.9 $m^3/s$. On-site detention tanks are proposed to mitigate this effect, so that there is no increase in peak flows to the downstream environment;
- Existing runoff during the 1% AEP flood event is expected to exceed the capacities of existing drains and culverts within the site. The December 2011 event, while greater than the design 1% AEP event according to the TDC Hydrology team, demonstrated the debris-generating potential of the upstream catchment, and the corresponding potential for blocked culverts and flows down Matenga Road. In order to mitigate the risk of inundation to proposed development, it is proposed to constrain overland flows to the Drain 1 (where possible) and the Matenga Road carriageway, as in the existing scenario. A road regrade or "speed bump" feature is proposed on the carriageway to direct water off the road surface where scour has historically been observed, and into Drain 1;
- Final ground levels across the site are to be confirmed during detailed design. We recommend that ground levels along the lower 30 m of Drain 1 be raised to provide a minimum freeboard of 0.5 m in the 1% AEP flood event. We recommend that the model is used during detailed design to assess the effect of the final earthworks plan on downstream properties;
- Drain 2 may be piped from Matenga Road to approximately 3-5 m upstream of the confluence with Drain 1. This arrangement has agreement from TDC's ecologist. Preliminary calculations indicate a 900 mm pipe will have sufficient capacity, subject to detailed design including design tailwater level and what (if any) lateral inflows are to be accepted along the new pipe;
- In the 'worst case scenario', where all development land was raised above adjacent flood levels and the proposed 900 mm diameter pipe becomes blocked, the modelling shows that there is negligible effect on flood depths and levels in the downstream floodplain (providing on-site detention tanks are provided to minimise subdivision runoff);
- Stormwater detention tanks can provide sufficient attenuation of post-development flows such they are no higher than pre-development flows for critical storm durations. Tanks should be sized to allow 40 litres per square metre of captured impervious area, and this allows for offset attenuation for runoff from per-lot and communal impervious surfaces that cannot be captured and attenuated. Tanks should be normally empty, and sited on each lot so that

flows from roofs are diverted into the tank under gravity. Specific design will be required to reduce tank sizes (e.g. if capture ratio is increased through use of underground tanks), or if the tanks are to include a component of rainwater harvesting for re-use;

- A consent notice should be on each title to ensure that the future owners install stormwater attenuation tanks. Suggested consent conditions are provided above;
- Providing stormwater tanks are appropriately sized for the total impervious coverage lot, the post-development flows will not be any greater than pre-development flows present day 1% AEP event. We have therefore not made specific assessment of the of the downstream network, as it is assumed flows from the developed site will be no than for the pre-development case;
- We recommend that the channel banks of all drains within the subdivision boundary are assessed during detailed design, and side slopes shaved back as required to mitigate risk of long term stability issues;
- Where there are points of concentrated discharge from the development, i.e. outlets into streams, we recommend that these should be assessed and provided with erosion protection.

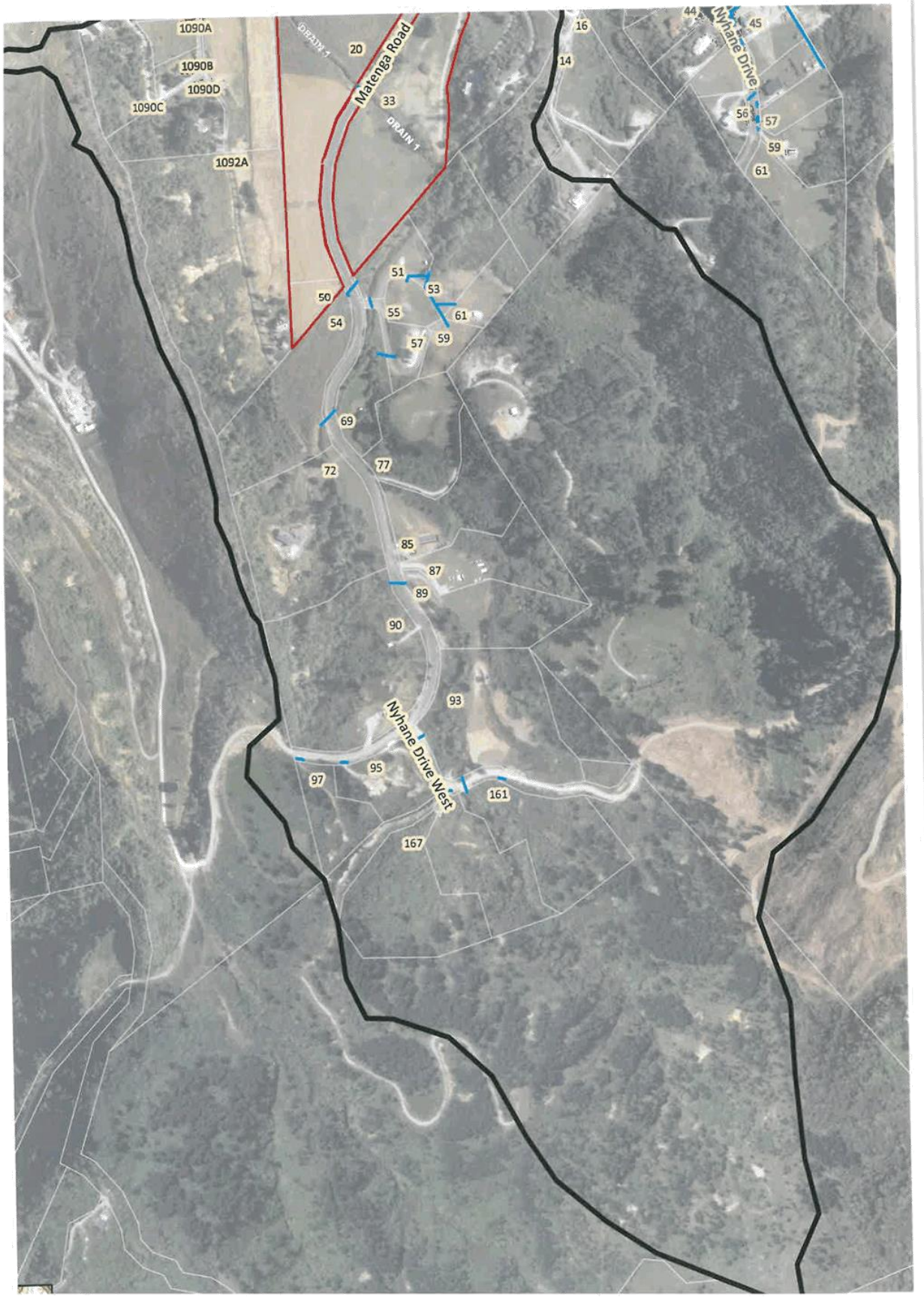

DP 6997
DP 13976
DP 9237
ROW E (Ex ROW)
ROW A
ROW B
ROW C
ROW D
ROW F
ROW G
ROW H
Ex Open Drain
Ex Water Course
Recreation Reserve to Vest
Road to Vest 1290m²
Esplanade Reserve to Vest 2090m²
Esplanade Reserve to Vest 1980m²
Road to Vest 340m² (0.9m wide)
(0.9m widening Lot 57)
(0.9m widening Lot 63)
DP 482379
DP 427124
1.13ha
Amalgamation Condition
Users
Lots 1, 3-7 hereon & Lots 4 & 12 DP 6997
Lots 11-13 hereon
Lots 15,16 &18 hereon
Lots 20-24
Lots 30 hereon & Lot 2 DP 9237

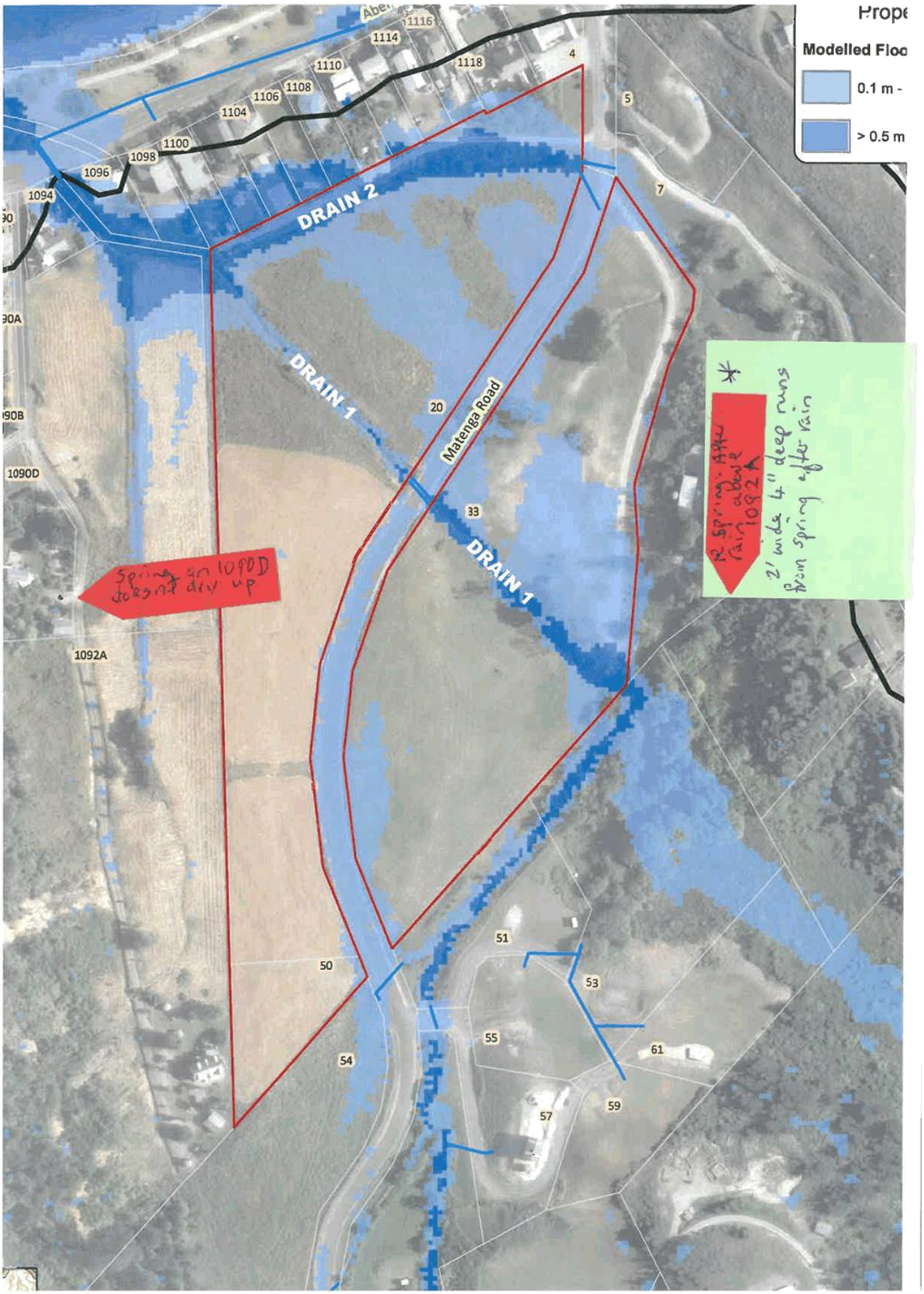

DP 6997
CT NL9A/448
58
DP 6997
SW Main
Ex 600 CL
Ex 450 Culvert
SW Main
Flow Path
Stormwater Main
ROW B
ROW C
Last 3-5m of stormwater main along ROW A to be open channel
Flow Path
Stormwater Main
2 x Ex 1050 Culverts
Proposed silt trap to be designed at engineering stage.
56
2
DP 482379
ROW D
ROW H
SW Main
Ex Water Course
SW Main
SW Main
Flow Path
ROW E
ROW G
1
DP 427124
4
DP 427124
2
DP 9237
SW Main
ROW F
EX 375 CULVERT (ENTRANCE)
5m Berm
Planting strip approx 10m
Espanade Reserve
Proposed Plants include:
Cabbage tree
Flax
Kowhai
Manuka


Matenga Road (Western Side)
Not to Scale
1.4m Metal Footpath
Berm
(Ex Legal 15.0)
(New Legal 16.8)
Proposed K&C
Seal
Ex Seal
ROW B, C, F & H
(Legal 4.0)
3.5
Two Coat Seal
3% XFall
Sld K&C
ROW A, D & G
Conc Nib
Two Coat Seal
3% XFall
Sld K&C
Road (Lot 57)
5.0
Two Coat Seal
3% XFall
Berm
Sld K&C
Conc Nib
Berm
Esplanade Reserve (width varies)
Ex GL
Berm 5.0
Planting strip see stormwater plan
2.5H:1V side slopes to be cut back where required as directed by Engineer
Ex depth varies 1-2m
Ex side slopes vary 1H:3V - 1H:5V
1:0
Ex Watercourse base varies 1-1.5m
Occasional Log embedded into bank angled downstream
Ex Creek
Berm 5.0
Planting strip see stormwater plan
2.5H:1V side slopes to be cut back where required as directed by Engineer

# Appendix B: Tonkin + Taylor Figures

- **Figure B1 – Catchment Boundary - Existing Stormwater Environment**
- **Figure B2 – Catchment Overview – Existing Flood Mapping**


1090A
1090B
1090C
1090D
1092A
DRAIN 1
20
Matenga Road
33
DRAIN 1
16
14
44
45
Nyhane Drive
56
57
59
61
51
53
50
55
61
54
57
59
69
72
77
85
87
89
90
93
Nyhane Drive West
95
97
161
167


Prope
Modelled Floo
0.1 m -
> 0.5 m
DRAIN 2
DRAIN 1
DRAIN 1
Matenga Road
1116
1114
1110
1118
1108
1106
1104
1100
1098
1096
1094
1092A
1090D
20
33
4
5
7
50
51
53
54
55
57
59
61
2' wide 4" deep runs from spring after rain
Spring on 1090D dries up

## STORMWATER ASSESSMENT - Runoff Coefficents

**Project:** Ligar Bay Development **By:** AAJE **Date:** 5/04/2017

**Location:** Ligar Bay **Checked:** DNV **Date:** 24/08/2017

### Calculation Description

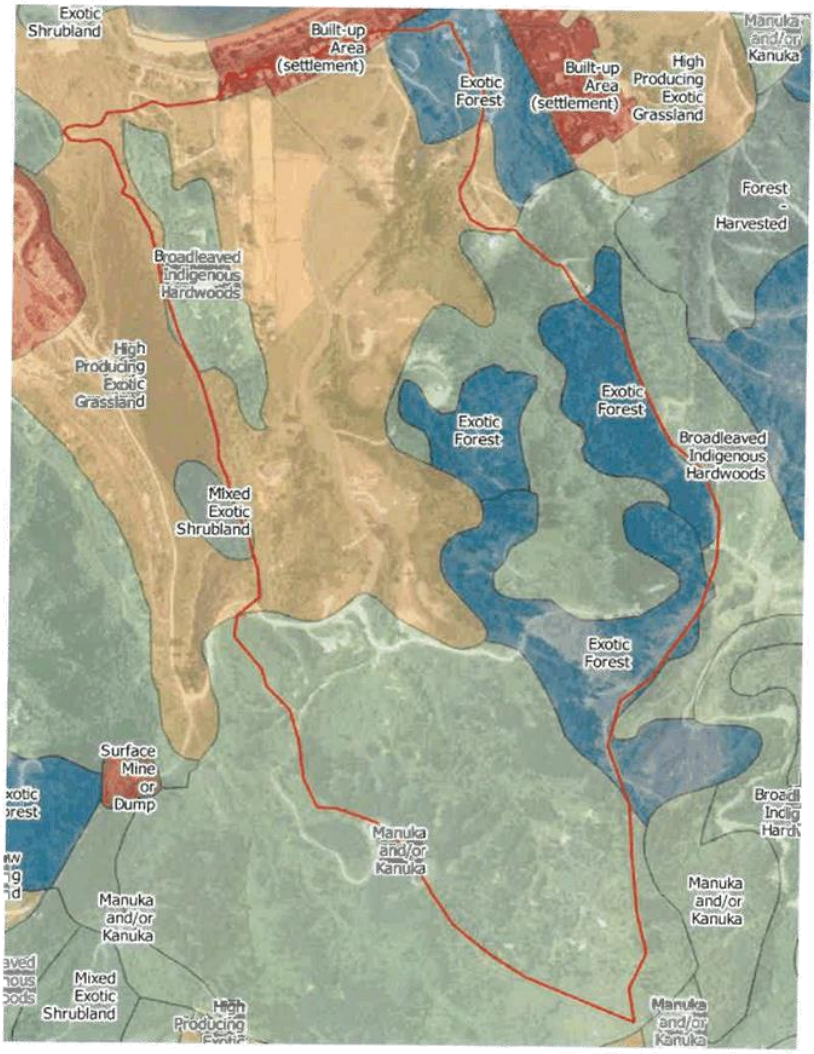
Determination of runoff coefficents for present day and post-development

Identify land cover

Determine Hydrologic Soil Class

### Present Day Land Cover

From New Zealand Land Cover Database v 4.1



## Hydrologic Soil Classification

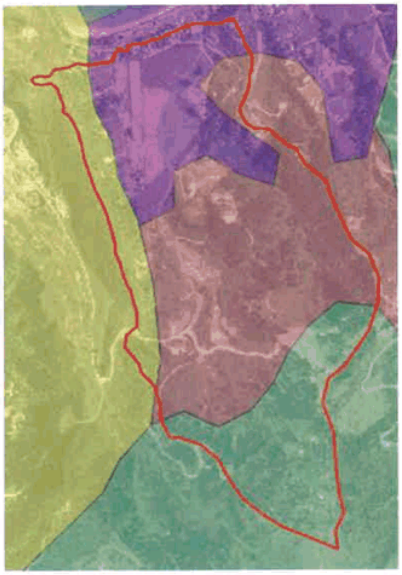
Method: TR 2009/00072 - Review of Hydrologic Propoerties of Soils in the Auckland Region by Auckland Regional Council

*Table 8: Proposed Soil Hydrologic Classes for Auckland Region*

| Hydrolic Soil Class | Hydro Class 1<br>Low Runoff Potential<br>A | Hydro Class 2<br>Moderate Runoff Potential<br>B | Hydro Class 3<br>Moderately High Runoff Potential<br>C | Hydro Class 4<br>High Runoff Potential<br>D | |
|---|---|---|---|---|---|
| Soil Textural Class<br>PS_CLASS[1] | 1 or 2<br>k, S, S/K | 3<br>L, L/S | 4<br>Z, Z/C | 5<br>C | ALL |
| | AND | | | | AND |
| Depth to Slowly Permeable Horizon<br>DLSO_CLASS | > 450 mm<br>>1 | | | | 450 mm or less<br>1[2] |
| | AND | | | | OR |
| Depth to Seasonally High Water Table<br>DRAIN_CLASS | > 300 mm<br>>2 | | | | 300 mm or less<br>1 or 2[2] |

[1] *Use PS_CLASS only when SOILTYPE is not available within the LRIS GIS data. Peat soils*

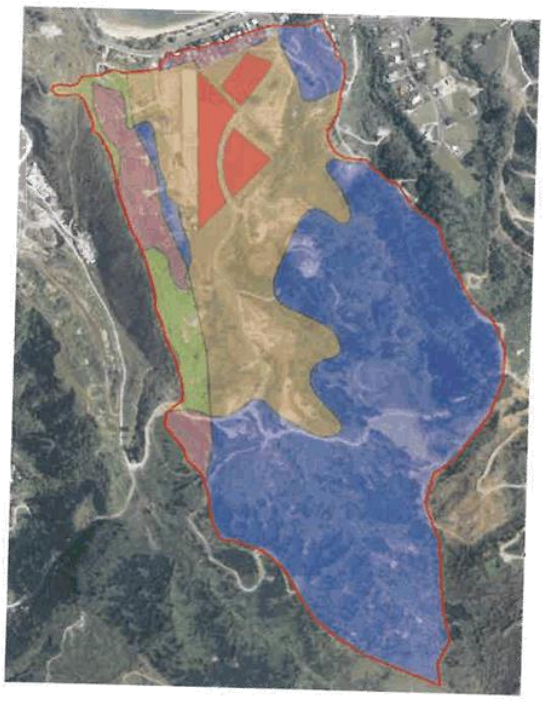
[2] *Selection of the depth to the seasonally high water table and to a slowly permeable*



| Map Colour | Red | Yellow | Green | Purple |
|---|---|---|---|---|
| PS_CLASS | L/C | L | L/C | Z |
| DSLO_CLASS | 3 | 6 | 3 | 6 |
| DRAIN_CLASS | 5 | 5 | 5 | 3 |
| **Hydrologic Soil Class** | **C** | **B** | **C** | **C** |

## Runoff Coefficents

Classified into Rational method Runoff Coefficients and Curve Numbers
According to TDC Engineering Standards and USDA TR-55 Urban Hydrology for Small Watersheds



| Cover Type | Colour | Hydrologic Soil Class | Curve Number | Runoff Coeficient |
|---|---|---|---|---|
| Built Up Area[1] | Purple | C | 83 | 0.76 |
| Developed Lots[1] | Red | C | 83 | 0.76 |
| Pasture[2] | Green | B | 61 | 0.30 |
| | Orange | C | 74 | 0.40 |
| Shrubland[2] | Light Blue | B | 48 | 0.25 |
| Forest[2] | Pink | B | 55 | 0.25 |
| | Blue | C | 70 | 0.35 |

*1 Based on 1/4 acre average lot size (38% Impervious Area)*
*2 'Good' Hydrologic Condition*

## STORMWATER ASSESSMENT - CATCHMENTS

**Project:** Ligar Bay Development **By:** AAJE **Date:** 5/04/2017

**Location:** Ligar Bay **Checked:** DNV **Date:** 24/08/2017

### Calculation Description

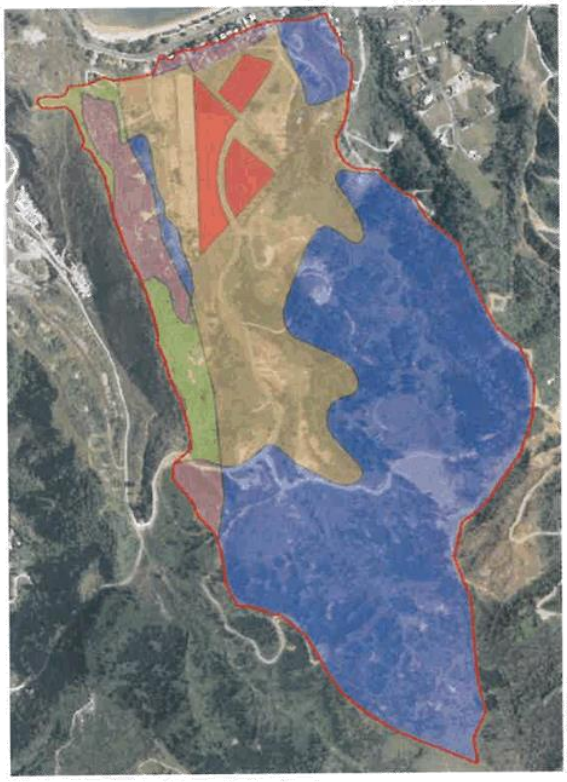
Categorise catchment into Pre and Post Development Areas

### Pre-Development

| Land Cover | Soil Class | Area (ha) |
|---|---|---|
| Built Up Area | C | 0.87 |
| Pasture | B | 3.66 |
| | C | 26.26 |
| Shrubland | B | 0.04 |
| Forest | B | 4.32 |
| | C | 47.25 |
| | **Total** | **82.39** |

### Post-Development

| Land Cover | Soil Class | Area (ha) |
|---|---|---|
| Development | C | 3.38 |
| Built Up Area | C | 0.87 |
| Pasture | B | 3.66 |
| | C | 22.88 |
| Shrubland | B | 0.04 |
| Forest | B | 4.32 |
| | C | 47.25 |
| | **Total** | **82.39** |



## STORMWATER ASSESSMENT - CATCHMENT SLOPE BY EQUAL AREAS METHOD

Project: Ligar Bay Development  By: AAJE  Date: 5/04/2017

Location: Ligar Bay  Checked: DNV  Date: 24/08/2017

### Calculation Description

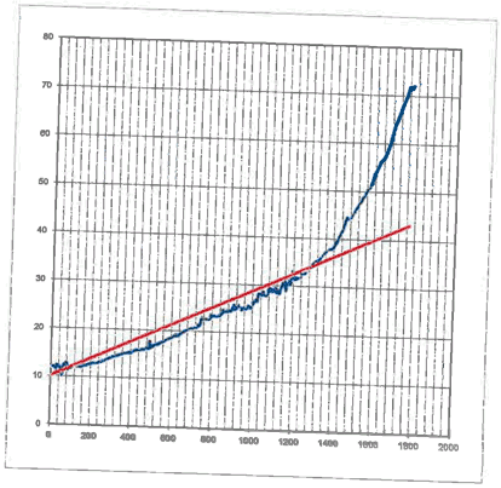
Calculate catchment slope by Equal Areas Method

| | | | 1897 | Sum: | 158465 |
|---|---|---|---|---|---|
| | | | | | $=\Delta x \cdot h_{mid}$ |
| Chainage (m) | Elevation (m) | h (m) | Δx (m) | $h_{mid}$ (m) | ΔA (m²) |
| 0 | 3 | 0.000 | 0.00 | - | - |
| 1.854 | 3 | 0.000 | 1.85 | 0.000 | 0 |
| 3.708 | 3 | 0.000 | 1.85 | 0.000 | 0 |
| 5.562 | 3 | 0.000 | 1.85 | 0.000 | 0 |
| 7.416 | 3 | 0.000 | 1.85 | 0.000 | 0 |
| 9.27 | 3.01 | 0.010 | 1.85 | 0.005 | 0 |
| 11.124 | 3.067 | 0.067 | 1.85 | 0.039 | 0 |
| 12.978 | 3.147 | 0.147 | 1.85 | 0.107 | 0 |
| 14.831 | 3.193 | 0.193 | 1.85 | 0.170 | 0 |
| 16.685 | 3.23 | 0.230 | 1.85 | 0.212 | 0 |
| 18.539 | 3.258 | 0.258 | 1.85 | 0.244 | 0 |
| 20.393 | 3.359 | 0.359 | 1.85 | 0.309 | 1 |
| 22.247 | 3.5 | 0.500 | 1.85 | 0.430 | 1 |
| 24.101 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 25.955 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 27.809 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 29.663 | 3.492 | 0.492 | 1.85 | 0.496 | 1 |
| 31.517 | 3.444 | 0.444 | 1.85 | 0.468 | 1 |
| 33.371 | 3.37 | 0.370 | 1.85 | 0.407 | 1 |
| 35.225 | 3.329 | 0.329 | 1.85 | 0.350 | 1 |
| 35.488 | 3.319 | 0.319 | 0.26 | 0.324 | 0 |
| 37.079 | 3.361 | 0.361 | 1.59 | 0.340 | 1 |
| 38.933 | 3.384 | 0.384 | 1.85 | 0.373 | 1 |
| 40.786 | 3.43 | 0.430 | 1.85 | 0.407 | 1 |
| 42.64 | 3.403 | 0.403 | 1.85 | 0.417 | 1 |
| 44.494 | 3.392 | 0.392 | 1.85 | 0.398 | 1 |
| 46.348 | 3.386 | 0.386 | 1.85 | 0.389 | 1 |
| 48.202 | 3.381 | 0.381 | 1.85 | 0.384 | 1 |
| 50.056 | 3.404 | 0.404 | 1.85 | 0.393 | 1 |
| 51.91 | 3.499 | 0.499 | 1.85 | 0.452 | 1 |
| 53.764 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 55.618 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 57.472 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 59.326 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 61.18 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 63.034 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 64.888 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 66.742 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 68.595 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 70.449 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 72.303 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 74.157 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 76.011 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 77.865 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 79.719 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 81.573 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 83.427 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 85.281 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 87.135 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 88.989 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 90.843 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |
| 92.697 | 3.5 | 0.500 | 1.85 | 0.500 | 1 |

$$Slope = S_c = \frac{2A}{(\sum \Delta x)^2}$$

| Equal Area curve | |
|---|---|
| 0 | 3.000 |
| 1897 | 170.104 |

= 0.088



## STORMWATER ASSESSMENT - TIME OF CONCENTRATION

**Project:** Ligar Bay Development **By:** AAJE **Date:** 5/04/2017

**Location:** Ligar Bay **Checked:** DNV **Date:** 24/08/2017

### Calculation Description

Calculate time of concentration using a variety of methods

| Geometry | Full Catchment | Unit |
|---|---|---|
| Length | 1,897 | m |
| Area | 823,880 | $m^2$ |
| Max RL | 332 | RL m |
| Min RL | 3 | RL m |
| Height Diff. | 329 | m |
| Slope | 0.17 | m/m |
| Slope (Equal Areas) | 0.09 | m/m |
| Mannings n | 0.045 | |

| Time of Concentration (minutes) | |
|---|---|
| E1/VM1 (TDC Stds) | 31 |
| USDA | 29 |
| Bransby Williams | 39 |
| TP108 | 37 |
| USSCS | 13 |
| **Average** | **30** |

| | | |
|---|---|---|
| Selected | 30 | minutes |

## STORMWATER ASSESSMENT - HYDROLOGY

**Project:** Ligar Bay Development

**By:** AAJE **Date:** 5/04/2017

**Location:** Ligar Bay

**Checked:** DNV **Date:** 24/08/2017

### Calculation Description

Use HIRDS Data to determine hydrology

### HIRDS Data

High Intensity Rainfall System V3

Depth-Duration-Frequency results (produced on Friday 17th of February 2017)
Sitename: Ligar Bay Development-Centroid of Catchment
Coordinate system: NZTM2000
Easting: 1592362.597
Northing: 5480166.639

Rainfall depths (mm)

| | | Duration | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ARI (y) | aep | 10m | 20m | 30m | 60m | 2h | 6h | 12h | 24h | 48h | 72h |
| 1.58 | 0.633 | 7 | 11.5 | 15.3 | 24.9 | 37.4 | 71 | 106.5 | 159.7 | 183.5 | 199.1 |
| 2 | 0.5 | 7.7 | 12.5 | 16.7 | 27.2 | 40.7 | 76.9 | 115 | 171.9 | 197.5 | 214.3 |
| 5 | 0.2 | 10 | 16.4 | 21.8 | 35.5 | 52.7 | 98.2 | 145.4 | 215.5 | 247.6 | 268.6 |
| 10 | 0.1 | 12 | 19.5 | 26 | 42.4 | 62.5 | 115.4 | 169.9 | 250.2 | 287.5 | 311.9 |
| 20 | 0.05 | 14.2 | 23.2 | 30.8 | 50.3 | 73.6 | 134.7 | 197.3 | 288.8 | 331.9 | 360 |
| 30 | 0.033 | 15.7 | 25.5 | 34 | 55.5 | 80.9 | 147.3 | 214.9 | 313.6 | 360.4 | 390.9 |
| 40 | 0.025 | 16.8 | 27.4 | 36.4 | 59.4 | 86.5 | 156.9 | 228.4 | 332.4 | 382 | 414.3 |
| 50 | 0.02 | 17.7 | 28.9 | 38.4 | 62.7 | 91.1 | 164.7 | 239.3 | 347.7 | 399.5 | 433.4 |
| 60 | 0.017 | 18.5 | 30.1 | 40.1 | 65.5 | 95 | 171.3 | 248.6 | 360.7 | 414.5 | 449.6 |
| 80 | 0.012 | 19.8 | 32.3 | 43 | 70.1 | 101.5 | 182.4 | 264 | 382.1 | 439.1 | 476.3 |
| 100 | 0.01 | 20.9 | 34 | 45.3 | 73.9 | 106.8 | 191.4 | 276.6 | 399.6 | 459.2 | 498.1 |
| 2.3 | | 8.1 | 13.1 | 17.6 | 28.6 | 42.7 | 80.5 | 120.2 | 179.4 | 206.1 | 223.7 |

Coefficients

| c1 | c2 | c3 | d1 | d2 | d3 | e | f |
|---|---|---|---|---|---|---|---|
| 0.0001 | -0.0116 | 0 | 0.7056 | 0.5844 | 0.2005 | 0.2362 | 3.2165 |

Standard errors (mm)

| | | Duration | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ARI (y) | aep | 10m | 20m | 30m | 60m | 2h | 6h | 12h | 24h | 48h | 72h |
| 1.58 | 0.633 | 2.7 | 2.7 | 2.7 | 2.7 | 2.8 | 3 | 3.3 | 3.4 | 3.6 | 3.7 |
| 2 | 0.5 | 2.7 | 2.7 | 2.7 | 2.8 | 2.8 | 3.1 | 3.5 | 3.5 | 3.8 | 3.9 |
| 5 | 0.2 | 2.7 | 2.7 | 2.8 | 2.9 | 3 | 3.8 | 4.6 | 4.5 | 4.9 | 5.2 |
| 10 | 0.1 | 2.7 | 2.8 | 2.9 | 3.1 | 3.3 | 4.8 | 6.2 | 5.9 | 6.6 | 7 |
| 20 | 0.05 | 2.8 | 2.9 | 3.1 | 3.5 | 4 | 6.6 | 8.8 | 8.2 | 9.3 | 9.9 |
| 30 | 0.033 | 2.8 | 3 | 3.2 | 3.9 | 4.6 | 8 | 10.9 | 10 | 11.4 | 12.2 |
| 40 | 0.025 | 2.9 | 3.1 | 3.4 | 4.3 | 5.2 | 9.3 | 12.7 | 11.5 | 13.2 | 14.1 |
| 50 | 0.02 | 2.9 | 3.3 | 3.6 | 4.6 | 5.7 | 10.3 | 14.2 | 12.8 | 14.7 | 15.7 |
| 60 | 0.017 | 2.9 | 3.4 | 3.8 | 4.9 | 6.1 | 11.3 | 15.6 | 13.9 | 16 | 17.1 |
| 80 | 0.012 | 3 | 3.6 | 4.1 | 5.5 | 6.9 | 12.9 | 17.9 | 15.9 | 18.3 | 19.6 |
| 100 | 0.01 | 3.1 | 3.7 | 4.3 | 6 | 7.5 | 14.3 | 19.9 | 17.5 | 20.2 | 21.6 |

In preparing this table, all reasonable skill and care was exercised using best available data & methods.
Nevertheless, NIWA does not accept any liability, whether direct, indirect or consequential, arising out the use of HIRDSV3. (c)2017 NIWA

### Hydrology

| | | |
|---|---|---|
| 2 year 24hr | 199.4 mm | 2100 |
| 10 year 24hr | 250.2 mm | present day |
| 20 year 24hr | 288.8 mm | present day |
| 100 year 24hr | 399.6 mm | present day |

## STORMWATER ASSESSMENT - HYETOGRAPH

**Project:** Ligar Bay Development **By:** AAJE **Date:** 5/04/2017

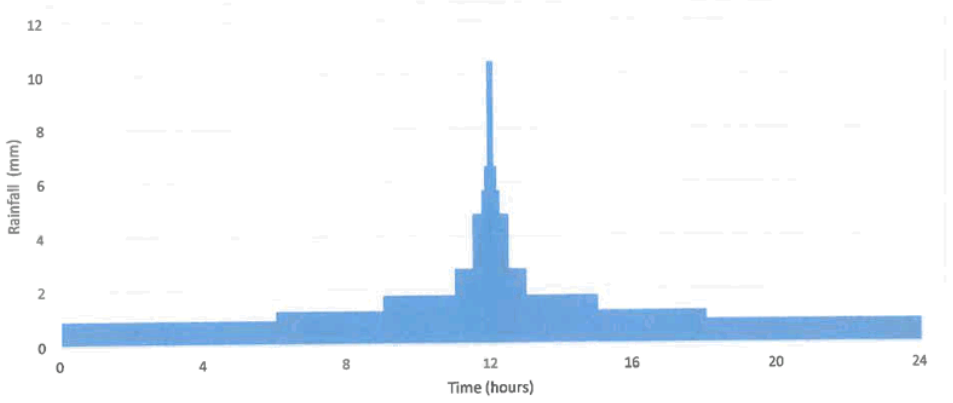
**Location:** Ligar Bay **Checked:** DNV **Date:** 24/08/2017

### Calculation Description

Use HIRDS Data to form a nested rainfall hyetograph

100 year 24 hr Storm

| Duration (min) | Depth (mm) | dt (min) | dD (mm) | dD/dt (mm/5min) |
|---|---|---|---|---|
| 10 | 20.9 | 10 | 20.90 | 10.5 |
| 20 | 34 | 10 | 13.10 | 6.6 |
| 30 | 45.3 | 10 | 11.30 | 5.7 |
| 60 | 73.9 | 30 | 28.60 | 4.8 |
| 120 | 106.8 | 60 | 32.90 | 2.7 |
| 360 | 191.4 | 240 | 84.60 | 1.8 |
| 720 | 276.6 | 360 | 85.20 | 1.2 |
| 1440 | 399.6 | 720 | 123.00 | 0.9 |



## STORMWATER ASSESSMENT - PRE-DEVELOPMENT SCENARIO

**Project:** Ligar Bay Development **By:** AAJE **Date:** 5/04/2017

**Location:** Ligar Bay **Checked:** DNV **Date:** 24/08/2017

### Calculation Description

Determine peak flow rate with variety of methods
Determine runoff volume for pond sizing calculations

**TP108 Method**

**1. Runoff Curve Number (CN) and Initial Abstraction (Ia)**

| Soil name and classification | Cover description (cover type, treatment, and hydrologic condition) | Curve Number CN* | Area (hectares) | Product of CN x Area |
|---|---|---|---|---|
| | Pervious Areas (List) | | | |
| *Class B soils* | *Pasture (Fair Condition)* | 61 | 3.662 | 223 |
| *Class C soils* | *Pasture (Fair Condition)* | 74 | 26.255 | 1,943 |
| *Class C soils* | *Shrubland (Fair Condition)* | 48 | 0.039 | 2 |
| *Class B soils* | *Forest (Fair Conditon)* | 55 | 4.316 | 237 |
| *Class C soils* | *Forest (Fair Conditon)* | 70 | 47.250 | 3,308 |
| | Subtotal for Pervious Areas | | 81.522 | 5,713 |
| | Impervious Areas (List) | | | |
| *Class C soils* | *Residential district 1/4 acre size* | 83 | 0.866 | 72 |
| | Subtotal for Impervious Areas | | 0.866 | 72 |
| | | Totals | 82.388 | 5,785 |

* from Table 3.3

CN (weighted) : $\frac{\text{total product}}{\text{total area}} = \frac{5{,}785}{82.388} = 70$

Ia (weighted) : $\frac{\text{5 x pervious area}}{\text{total area}} = \frac{5 \times 81.522}{82.388} = 4.95$ mm

**2. Time of Concentration**

| | | | | |
|---|---|---|---|---|
| Channelisation Factor : | C | = | 1 | (from Table 4.2) |
| Catchment Length : | L | = | 1.90 | km (along drainage path) |
| Catchment Slope : | Sc | = | 0.088 | m/m (by equal area method) |
| Runoff Factor R : | $\frac{CN}{200 - CN}$ | = | 0.54 | |

Time of Concentration : $t_c = 0.14\ C\ L^{0.66}\ R^{-0.55}\ Sc^{-0.30} = 0.62$ hrs

SCS Lag for HEC-HMS : $t_p = 2/3\ t_c = 0.41$ hrs

**3. Soil Storage Parameter :** $S = ((1000/CN)-10)*25.4$

| | | |
|---|---|---|
| Total | = | 107.7 mm |
| Pervious | = | 108.4 mm |
| Impervious | = | 52.0 mm |

Ligar Bay Development Stormwater Assessment
T+T Ref: 1002053

Pre-Development

| | | | | | Storm #1 |
|---|---|---|---|---|---|
| 4. | **Average Recurrence Interval, ARI (yr) :** | | | | 100 |
| 5. | **24 hour Rainfall Depth, $P_{24}$ (mm),** (from Appendix A) | | | | 399.6 |
| 6. | **Runoff Index, c* :** | $= \frac{P_{24} - 2Ia}{P_{24} - 2Ia + 2S}$ | | | 0.64 |
| 7. | **Specific Peak Flow Rate, q*,** (from Figure 5.1) | | | | 0.090 |
| 8. | **Peak Flow Rate, $q_p$ :** | $= q^* A P_{24}$ | ($m^3/s$) | | 29.61 |
| 9. | **Runoff Depth, $Q_{24}$ :** | $= \frac{(P_{24} - Ia)2}{(P_{24} - Ia) + S}$ | (mm) | Pervious | 309.5 |
| | | | | Impervious | 353.6 |
| 10. | **Runoff Volume, $V_{24}$ :** | $= 1000 \times Q_{24} A$ | ($m^3$) | Pervious | 252,337 |
| | | | | Impervious | 3,062 |
| | | | | Total | 255,399 |

**Rational Method**

| | |
|---|---|
| 30 min Rainfall Depth (mm), from HIRDS Data | 45.1 |
| Peak Flow Rate, Q : | 7.54 |

**HEC-HMS Model**

| | |
|---|---|
| SCS (Type 1A Storm), Peak Flow Rate, Q : | 15.05 |
| SCS (HIRDS Frequency Storm), Peak Flow Rate, Q : | 17.84 |

**McKerchar and Pearson Peak Flow Rate**

| | | |
|---|---|---|
| $Q/A^{0.8}$ | 3.55 | |
| q100 | | 2.12 |
| Peak Flow Rate, Q : | | 6.45 |

## STORMWATER ASSESSMENT - POST-DEVELOPMENT SCENARIO

**Project:** Ligar Bay Development — **By:** AAJE — **Date:** 5/04/2017

**Location:** Ligar Bay — **Checked:** DNV — **Date:** 24/08/2017

### Calculation Description

Determine peak flow rate with variety of methods
Determine runoff volume for pond sizing calculations

**TP108 Method**

**1. Runoff Curve Number (CN) and Initial Abstraction (Ia)**

| Soil name and classification | Cover description (cover type, treatment, and hydrologic condition) | Curve Number CN* | Area (hectares) | Product of CN x Area |
|---|---|---|---|---|
| | Pervious Areas (List) | | | |
| *Class B soils* | *Pasture (Fair Condition)* | 61 | 3.662 | 223 |
| *Class C soils* | *Pasture (Fair Condition)* | 74 | 22.875 | 1,693 |
| *Class C soils* | *Shrubland (Fair Condition)* | 48 | 0.039 | 2 |
| *Class B soils* | *Forest (Fair Conditon)* | 55 | 4.316 | 237 |
| *Class C soils* | *Forest (Fair Conditon)* | 70 | 47.250 | 3,308 |
| | Subtotal for Pervious Areas | | 78.142 | 5,463 |
| | Impervious Areas (List) | | | |
| *Class C soils* | *Residential district 1/4 acre size* | 83 | 4.246 | 352 |
| | Subtotal for Impervious Areas | | 4.246 | 352 |
| | | Totals | 82.388 | 5,815 |

* from Table 3.3

CN (weighted) : $\frac{\text{total product}}{\text{total area}} = \frac{5{,}815}{82.388} = 71$

Ia (weighted) : $\frac{5 \times \text{pervious area}}{\text{total area}} = \frac{5 \times 78.1424152}{82.388} = 4.74$ mm

**2. Time of Concentration**

| | | | | |
|---|---|---|---|---|
| Channelisation Factor : | C | = | 1 | (from Table 4.2) |
| Catchment Length : | L | = | 1.90 | km (along drainage path) |
| Catchment Slope : | Sc | = | 0.088 | m/m (by equal area method) |
| Runoff Factor R : | $\frac{CN}{200 - CN}$ | = | 0.55 | |

Time of Concentration : $t_c = 0.14\ C\ L^{0.66}\ R^{-0.55}\ Sc^{-0.30} = 0.62$ hrs

SCS Lag for HEC-HMS : $t_p = 2/3\ t_c = 0.41$ hrs

**3. Soil Storage Parameter :** $S = ((1000/CN)-10)*25.4$

| | | | |
|---|---|---|---|
| Total | = | 105.9 | mm |
| Pervious | = | 109.3 | mm |
| Impervious | = | 52.0 | mm |

Ligar Bay Development Stormwater Assessment
T+T Ref: 1002053

Post-Development

| | | | | | Storm #1 |
|---|---|---|---|---|---|
| 4. | **Average Recurrence Interval, ARI (yr) :** | | | | 100 |
| 5. | **24 hour Rainfall Depth, $P_{24}$ (mm),** (from Appendix A) | | | | 399.6 |
| 6. | **Runoff Index, c* :** | = | $\frac{P_{24} - 2Ia}{P_{24} - 2Ia + 2S}$ | | 0.65 |
| 7. | **Specific Peak Flow Rate, q*,** (from Figure 5.1) | | | | 0.091 |
| 8. | **Peak Flow Rate, $q_p$ :** | = | $q^* A P_{24}$ | ($m^3/s$) | 29.93 |
| 9. | **Runoff Depth, $Q_{24}$ :** | = | $\frac{(P_{24} - Ia)2}{(P_{24} - Ia) + S}$ | (mm) | Pervious 309.0<br>Impervious 353.6 |
| 10. | **Runoff Volume, $V_{24}$ :** | = | $1000 \times Q_{24} A$ | ($m^3$) | Pervious 241,454<br>Impervious 15,011<br>Total 256,465 |

**Rational Method**

| | |
|---|---|
| 30 min Rainfall Depth (mm), from HIRDS Data | 45.1 |
| Peak Flow Rate, Q : | 7.9 |

**HEC-HMS Model**

| | |
|---|---|
| SCS (Type 1A Storm), Peak Flow Rate, Q : | 15.00 |
| SCS (HIRDS Frequency Storm), Peak Flow Rate, Q : | 17.82 |

**McKerchar and Pearson Peak Flow Rate**

| | |
|---|---|
| $Q/A^{0.8}$ 3.55 | |
| q100 | 2.12 |
| Peak Flow Rate, Q : | 6.45 |

# Mean Annual Flow Calculation

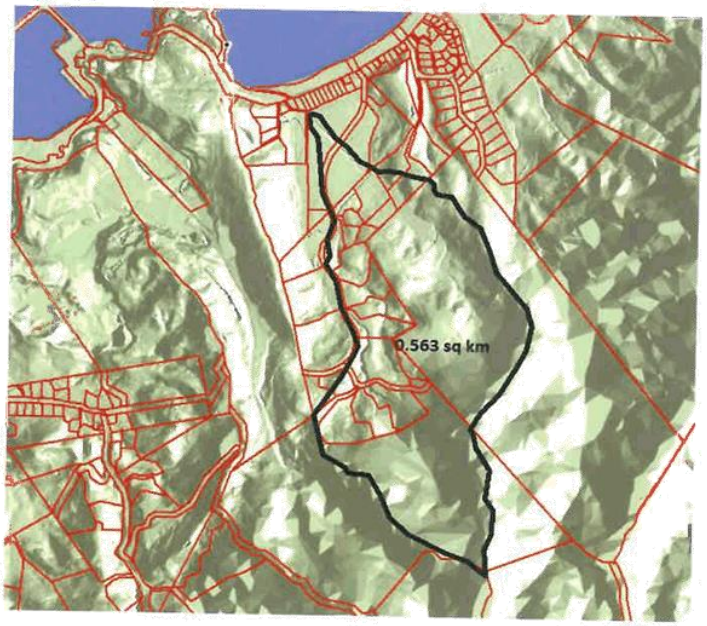
Ligar Bay

Computed: Damian Velluppillai (Senior Water Engineer)
Checked: John Hansford (Senior hydrologist)

Drain 2 for Ligar Bay Developments

Purpose To establish the mean annual flow within Drain 2, for Esplanade Reserve purposes.

Catchment Area to bottom of Drain 2 (not including Drain 1 inflows at confluence) 56.3 ha




Existing catchment characteristics (more detail provided with original T+T assessment)

From NZ LRI - predominantly Hydrologic Soil Class C - low to medium infiltration rate

| LCDB2 cover type | Area (ha) | Runoff C |
|---|---|---|
| Pasture | 12.6 | 0.40 |
| Forest | 43.7 | 0.35 |
| Total/weighted | 56.3 | 0.36 |

Time of concentration - 30 mins (refer original T+T assessment for calcs)

## Rational Method

Q=ciA

Design 30 minute, 2.3 yr ARI intensity from HIRDS v3 35.1 mm/hr

Mean Annual Flow = CIA = 0.36 x 35.1 mm/hr x 56.3 ha = 2.0 $m^3/s$

## McKerchar Pearson method - Flood Frequency in NZ, 1989

$Q/A^{0.8}$ 3.55

Mean Annual Flow, Q : 2.2 $m^3/s$

Thus, two estimates for mean annual flow 2.0 to 2.2 $m^3/s$

Give weight to Rational method value of 2 $m^3/s$ because:
- based on HIRDS v3 data (using rainfall up to 2008) rather than McKerchar Pearson published in 1989
- Rational method stipulated for use by TDC Engineering Stds
- McKerchar Pearson method a regional method based on old rainfall data and an averaged power of 0.8 applied to the area which may not be appropriate for this particular catchment - no data to assess this for this catchment.
- Some literature suggests that rational runoff coefficients are best for extreme events, and should be reduced for estimation of less extreme events.

**Modelling for mean annual flow width**

Planscapes surveyed cross sections were used to set up a HEC-RAS model of drain 2, with the following parameters:

- Inflow of 2 cumecs
- Uniform flow depth at downstream end, as Drain 2 invert is above MHWS level and Drain 1 flows not expected to cause significant tailwater level
- Manning's n within Drain 2 of between 0.03 and 0.06
- Model covers straight section from top of subdivision to bottom of Drain 2

Resultant flow widths at each cross section (from HEC-RAS) below - average = 2.9-3.5 m, depending on Manning's n

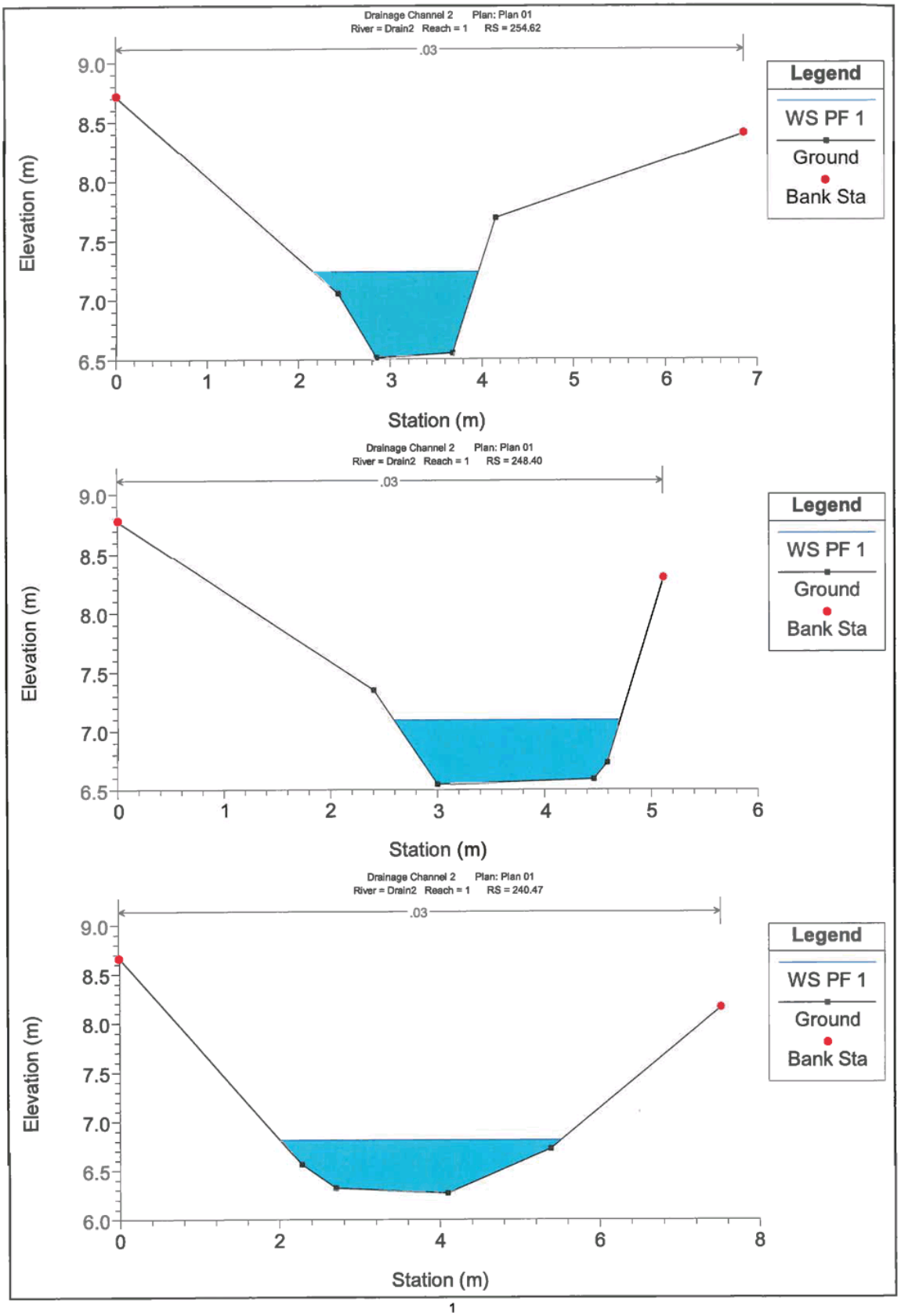
| | Top flow width (m) | | | |
|---|---|---|---|---|
| Cross Section | n=0.03 | n=0.04 | n=0.05 | n=0.06 |
| 254.62 | 1.80 | 1.86 | 2.07 | 2.20 |
| 248.4 | 2.12 | 2.12 | 2.12 | 2.12 |
| 240.47 | 3.51 | 3.71 | 3.86 | 3.97 |
| 228.42 | 2.30 | 2.30 | 2.30 | 2.31 |
| 222.33 | 3.84 | 3.88 | 3.93 | 3.97 |
| 215.05 | 1.93 | 1.93 | 1.93 | 1.93 |
| 215.28 | 3.76 | 3.76 | 3.79 | 3.86 |
| 210.08 | 2.50 | 2.50 | 2.55 | 2.71 |
| 204.79 | 3.32 | 3.32 | 3.32 | 3.32 |
| 201.61 | 4.66 | 4.70 | 4.75 | 4.87 |
| 193.93 | 2.32 | 2.32 | 2.66 | 3.00 |
| 180.59 | 2.77 | 3.13 | 3.39 | 3.63 |
| 172.272 | 2.50 | 2.72 | 3.01 | 3.24 |
| 164.837 | 3.47 | 3.73 | 3.89 | 4.04 |
| 150 | 4.30 | 4.31 | 4.61 | 5.12 |
| 145.5 | 2.62 | 2.91 | 3.21 | 3.47 |
| 133.8 | 3.18 | 3.39 | 3.59 | 3.81 |
| 121.7 | 2.86 | 3.01 | 3.16 | 3.30 |
| 111.7 | 3.05 | 3.20 | 3.41 | 3.61 |
| 102.5 | 2.37 | 2.62 | 3.04 | 3.39 |
| 91.9 | 2.69 | 2.98 | 3.21 | 3.47 |
| 81.1 | 3.23 | 3.63 | 3.95 | 4.25 |
| 73.3 | 3.30 | 3.58 | 3.76 | 3.88 |
| 63.5 | 2.97 | 3.21 | 3.58 | 3.90 |
| 54.5 | 2.81 | 3.20 | 3.43 | 3.60 |
| 45.8 | 3.61 | 3.96 | 4.21 | 4.50 |
| 31.8 | 2.85 | 2.93 | 3.44 | 3.83 |
| 24.38 | 2.77 | 3.02 | 3.22 | 3.39 |
| 0 | 2.85 | 3.21 | 3.59 | 3.92 |
| Average top width (m) | 2.9 | 3.1 | 3.3 | 3.5 |

**Conclusion:** Based on available data and standard approaches, mean annual flow width considered to be greater than 3m.

HEC-RAS Plan: Plan 01 River: Drain2 Reach: 1 Profile: PF 1

| Reach | River Sta | Profile | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (m3/s) | (m) | (m) | (m) | (m) | (m/m) | (m/s) | (m2) | (m) | |
| 1 | 254.62 | PF 1 | 2.00 | 6.51 | 7.23 | 7.23 | 7.48 | 0.018233 | 2.23 | 0.90 | 1.80 | 1.01 |
| 1 | 248.40 | PF 1 | 2.00 | 6.54 | 7.08 | 7.08 | 7.31 | 0.016131 | 2.10 | 0.95 | 2.12 | 1.00 |
| 1 | 240.47 | PF 1 | 2.00 | 6.26 | 6.80 | 6.74 | 6.92 | 0.008380 | 1.51 | 1.32 | 3.51 | 0.79 |
| 1 | 228.42 | PF 1 | 2.00 | 6.08 | 6.56 | 6.56 | 6.77 | 0.016358 | 2.05 | 0.98 | 2.30 | 1.00 |
| 1 | 222.33 | PF 1 | 2.00 | 5.75 | 6.56 | | 6.60 | 0.002003 | 0.92 | 2.17 | 3.84 | 0.39 |
| 1 | 219.06 | PF 1 | 2.00 | 5.62 | 6.32 | 6.32 | 6.56 | 0.018251 | 2.17 | 0.92 | 1.93 | 1.01 |
| 1 | 215.28 | PF 1 | 2.00 | 5.63 | 6.04 | 6.04 | 6.19 | 0.014422 | 1.74 | 1.15 | 3.76 | 1.00 |
| 1 | 210.08 | PF 1 | 2.00 | 5.25 | 5.80 | 5.80 | 6.00 | 0.015277 | 2.00 | 1.00 | 2.50 | 1.01 |
| 1 | 204.79 | PF 1 | 2.00 | 5.07 | 5.62 | 5.62 | 5.79 | 0.014946 | 1.82 | 1.10 | 3.32 | 1.01 |
| 1 | 201.61 | PF 1 | 2.00 | 4.65 | 5.62 | | 5.65 | 0.000905 | 0.68 | 2.95 | 4.66 | 0.27 |
| 1 | 193.63 | PF 1 | 2.00 | 4.67 | 5.40 | 5.40 | 5.61 | 0.016494 | 2.05 | 0.98 | 2.32 | 1.01 |
| 1 | 180.59 | PF 1 | 2.00 | 4.46 | 5.09 | 5.08 | 5.28 | 0.013973 | 1.89 | 1.06 | 2.77 | 0.98 |
| 1 | 172.272 | PF 1 | 2.00 | 4.13 | 4.94 | 4.94 | 5.15 | 0.016474 | 2.00 | 1.00 | 2.50 | 1.01 |
| 1 | 164.837 | PF 1 | 2.00 | 4.19 | 4.92 | | 5.00 | 0.005337 | 1.31 | 1.53 | 3.47 | 0.63 |
| 1 | 150 | PF 1 | 2.00 | 4.30 | 4.73 | 4.73 | 4.88 | 0.014437 | 1.67 | 1.20 | 4.30 | 1.01 |
| 1 | 145.5 | PF 1 | 2.00 | 3.95 | 4.54 | 4.54 | 4.73 | 0.014701 | 1.97 | 1.02 | 2.62 | 1.01 |
| 1 | 133.8 | PF 1 | 2.00 | 3.88 | 4.39 | 4.38 | 4.55 | 0.013080 | 1.78 | 1.12 | 3.18 | 0.96 |
| 1 | 121.7 | PF 1 | 2.00 | 3.71 | 4.29 | | 4.42 | 0.008154 | 1.56 | 1.28 | 2.86 | 0.75 |
| 1 | 111.7 | PF 1 | 2.00 | 3.37 | 4.25 | | 4.34 | 0.004952 | 1.32 | 1.52 | 3.05 | 0.60 |
| 1 | 102.5 | PF 1 | 2.00 | 3.44 | 4.05 | 4.05 | 4.26 | 0.015131 | 2.02 | 0.99 | 2.37 | 1.00 |
| 1 | 91.9 | PF 1 | 2.00 | 3.31 | 3.93 | 3.90 | 4.10 | 0.012500 | 1.85 | 1.08 | 2.69 | 0.93 |
| 1 | 81.1 | PF 1 | 2.00 | 3.24 | 3.84 | | 3.97 | 0.009657 | 1.62 | 1.23 | 3.23 | 0.84 |
| 1 | 73.3 | PF 1 | 2.00 | 3.12 | 3.80 | | 3.90 | 0.006874 | 1.43 | 1.40 | 3.30 | 0.70 |
| 1 | 63.5 | PF 1 | 2.00 | 3.01 | 3.62 | 3.62 | 3.80 | 0.014805 | 1.88 | 1.06 | 2.97 | 1.01 |
| 1 | 54.5 | PF 1 | 2.00 | 2.76 | 3.44 | 3.44 | 3.63 | 0.015417 | 1.92 | 1.04 | 2.81 | 1.01 |
| 1 | 45.8 | PF 1 | 2.00 | 2.71 | 3.42 | | 3.50 | 0.005318 | 1.26 | 1.58 | 3.61 | 0.61 |
| 1 | 31.8 | PF 1 | 2.00 | 2.53 | 3.19 | 3.19 | 3.38 | 0.015815 | 1.91 | 1.05 | 2.85 | 1.01 |
| 1 | 24.38 | PF 1 | 2.00 | 2.41 | 3.05 | | 3.20 | 0.009955 | 1.71 | 1.17 | 2.77 | 0.84 |
| 1 | 0 | PF 1 | 2.00 | 2.05 | 2.71 | 2.71 | 2.90 | 0.015835 | 1.91 | 1.05 | 2.85 | 1.01 |

*Note: this table and subsequent cross sections present the results of the Manning's n = 0.03 run. Additional model results can be provided on request.*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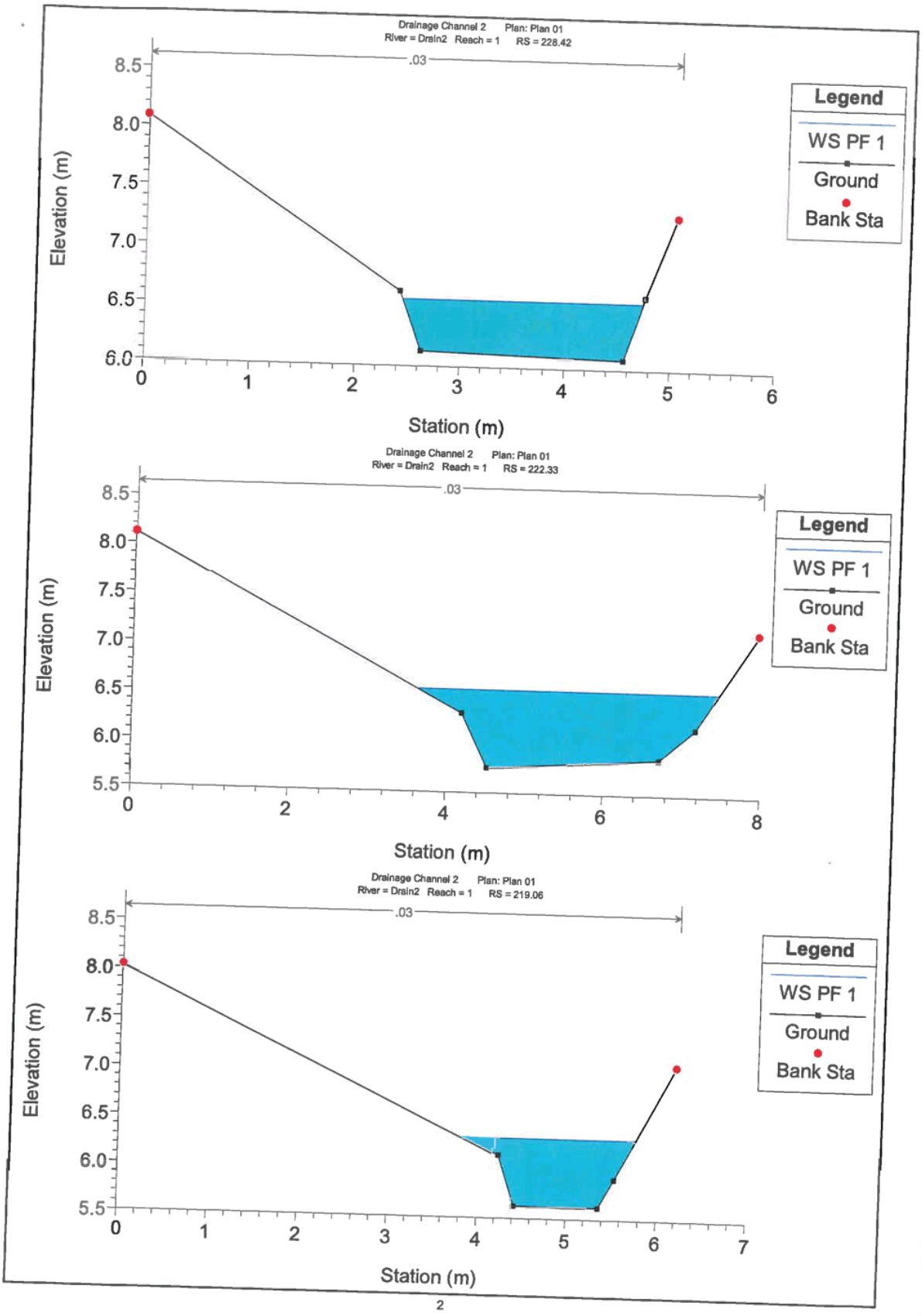
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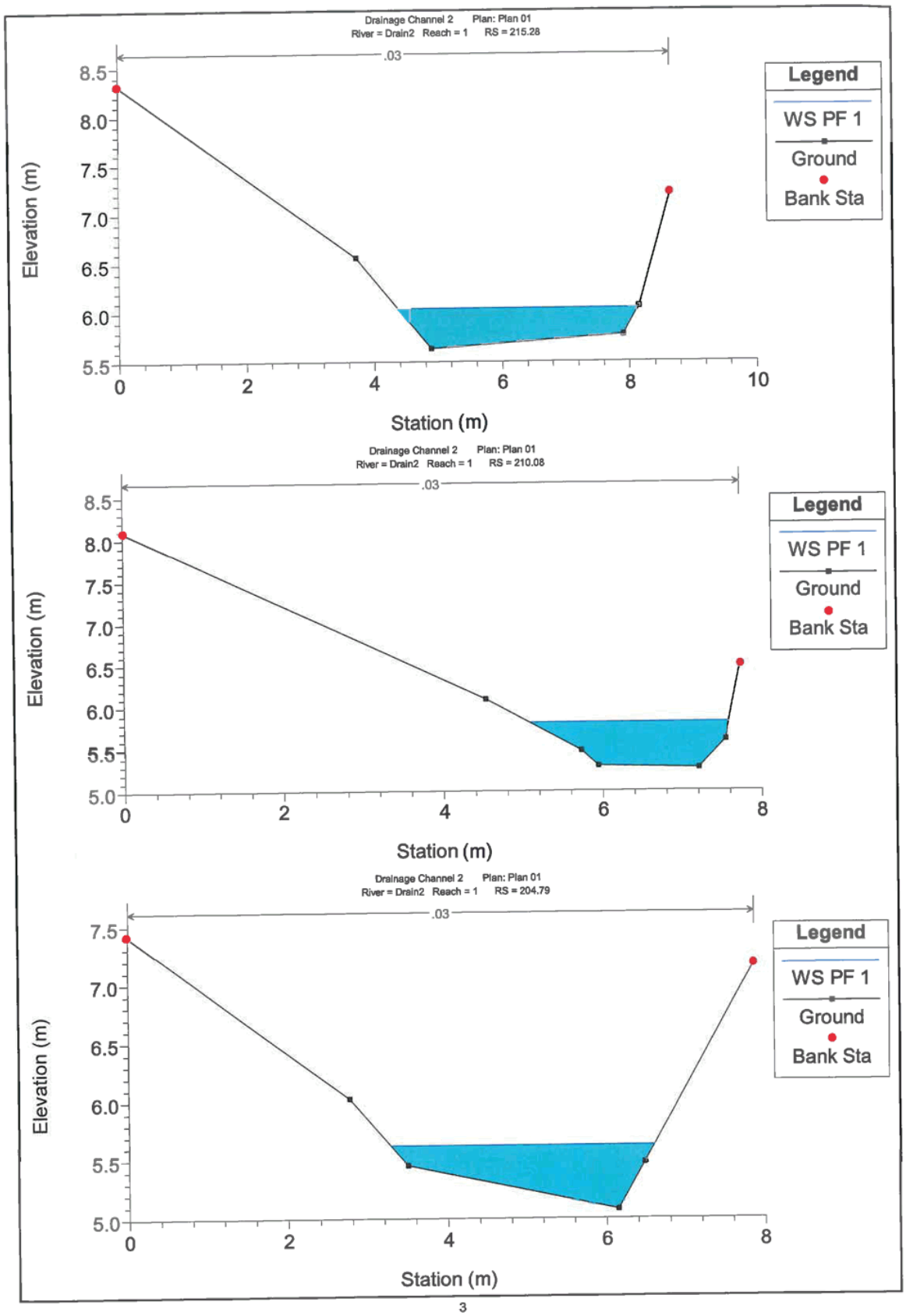
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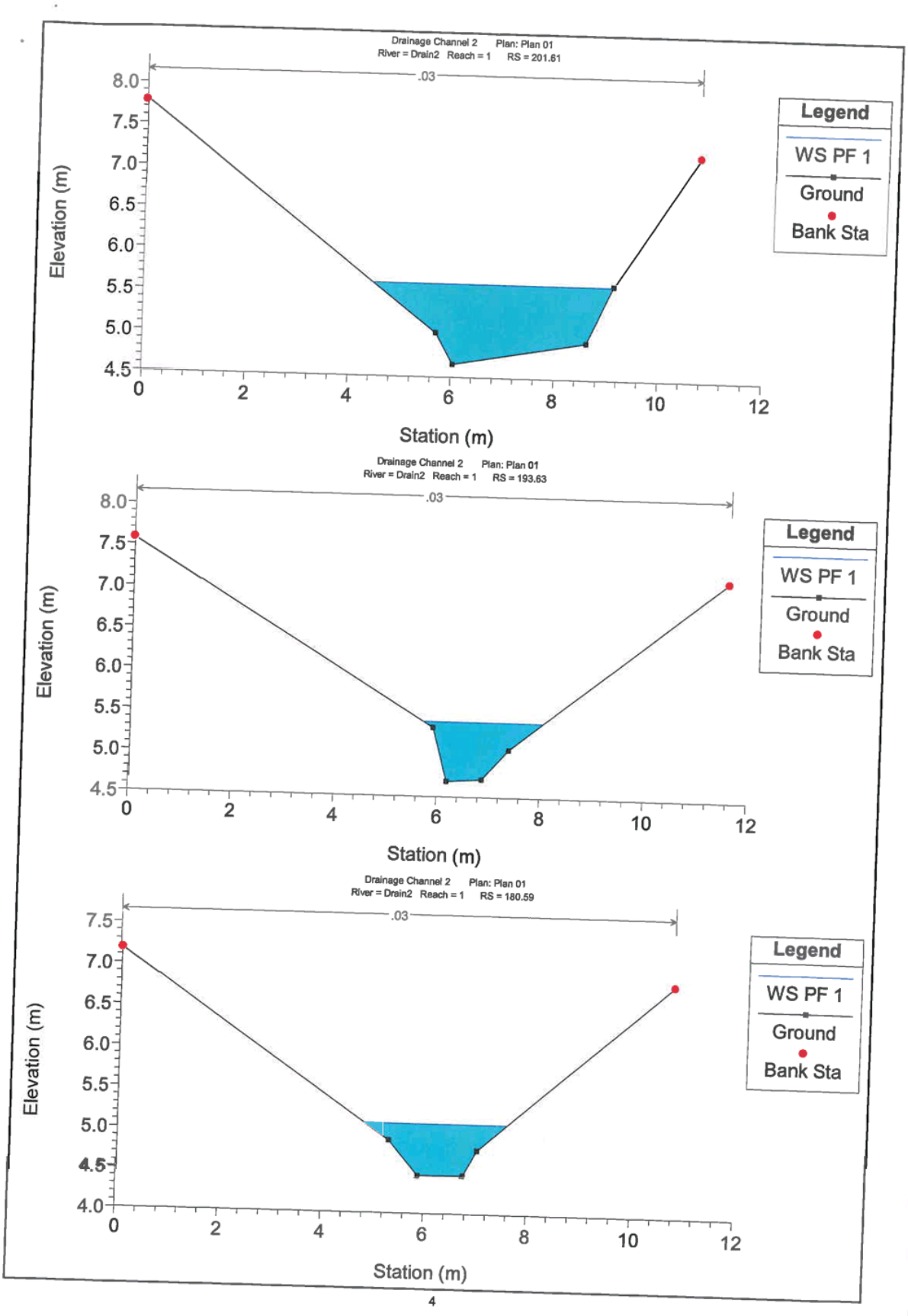
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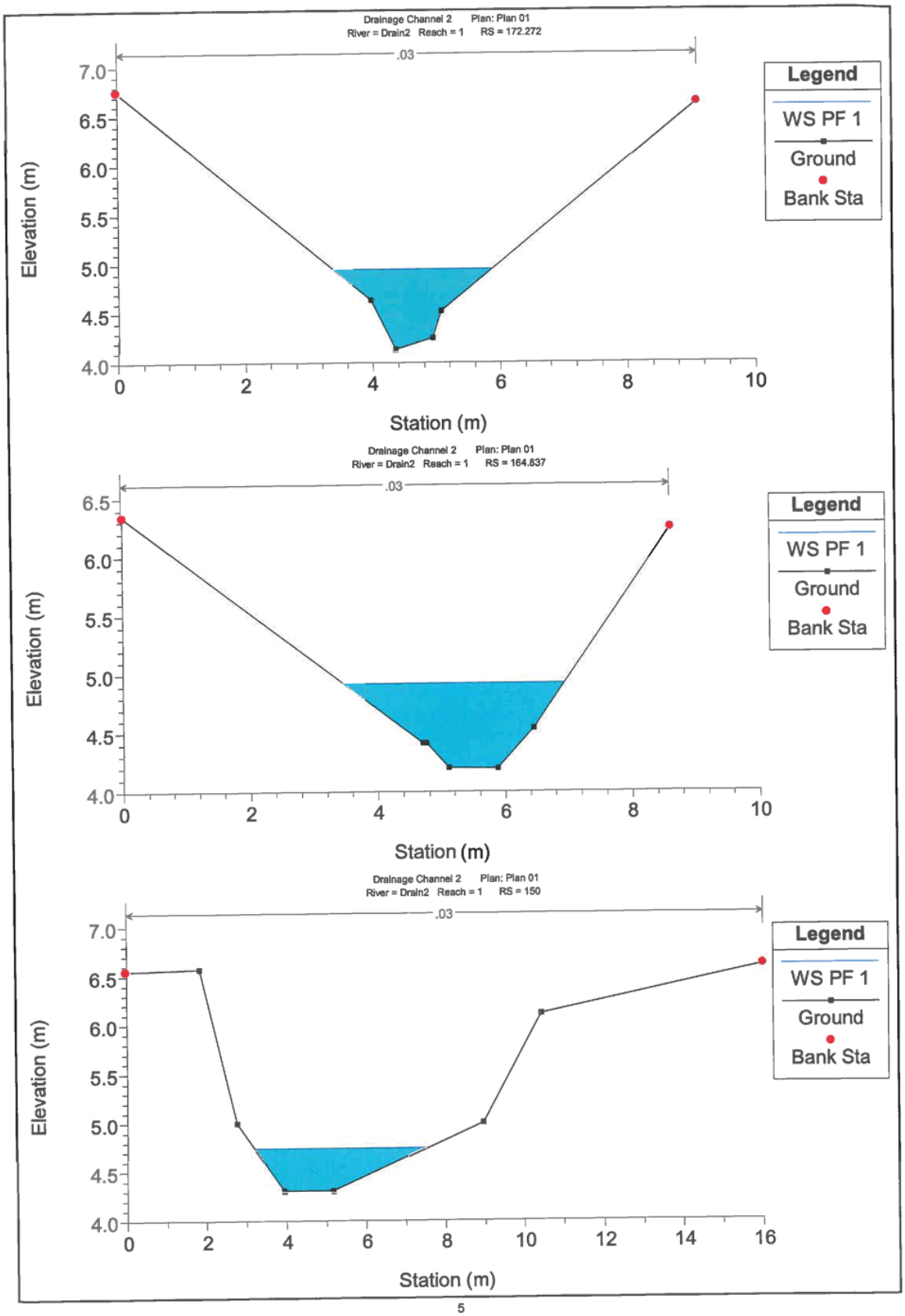
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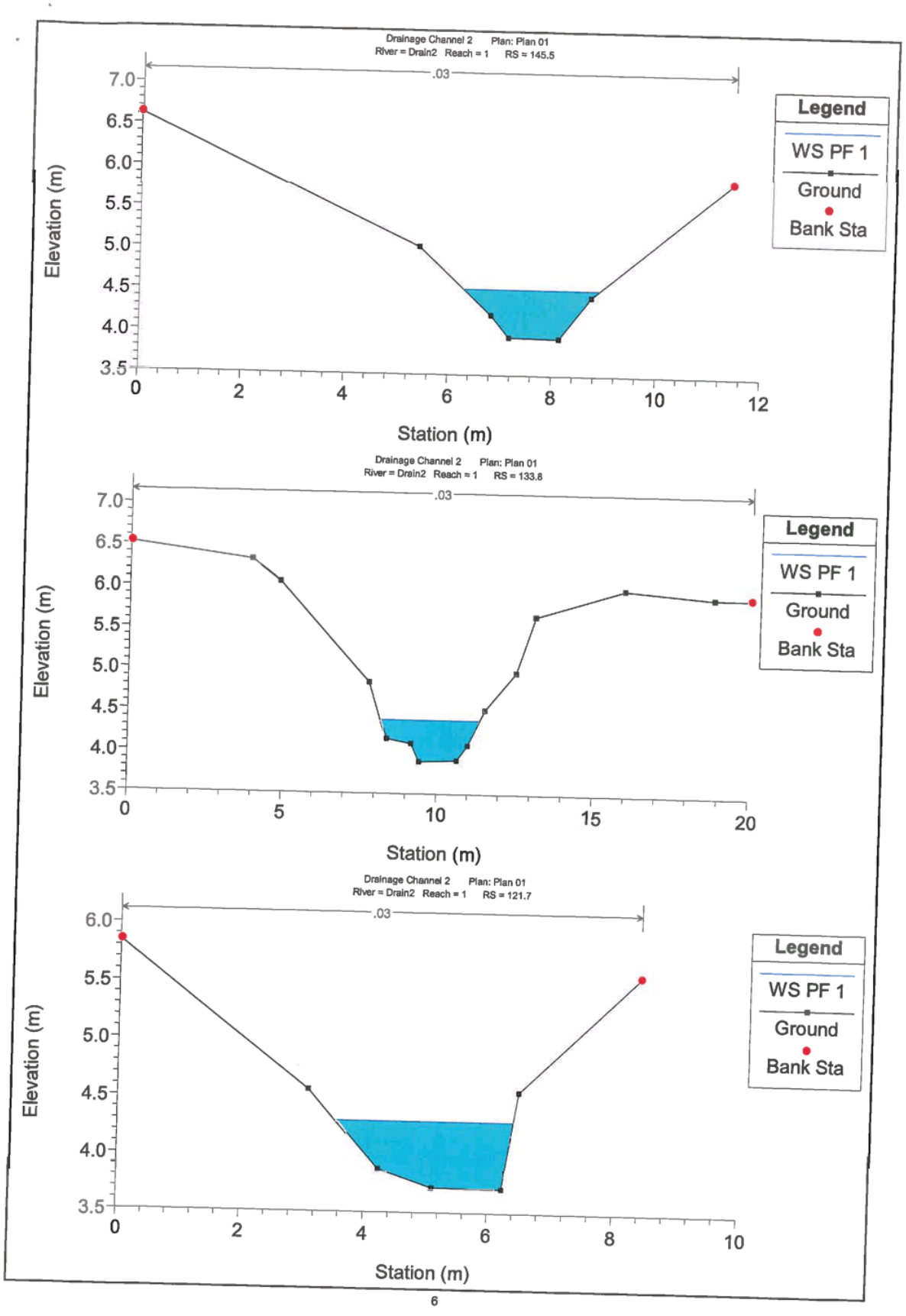
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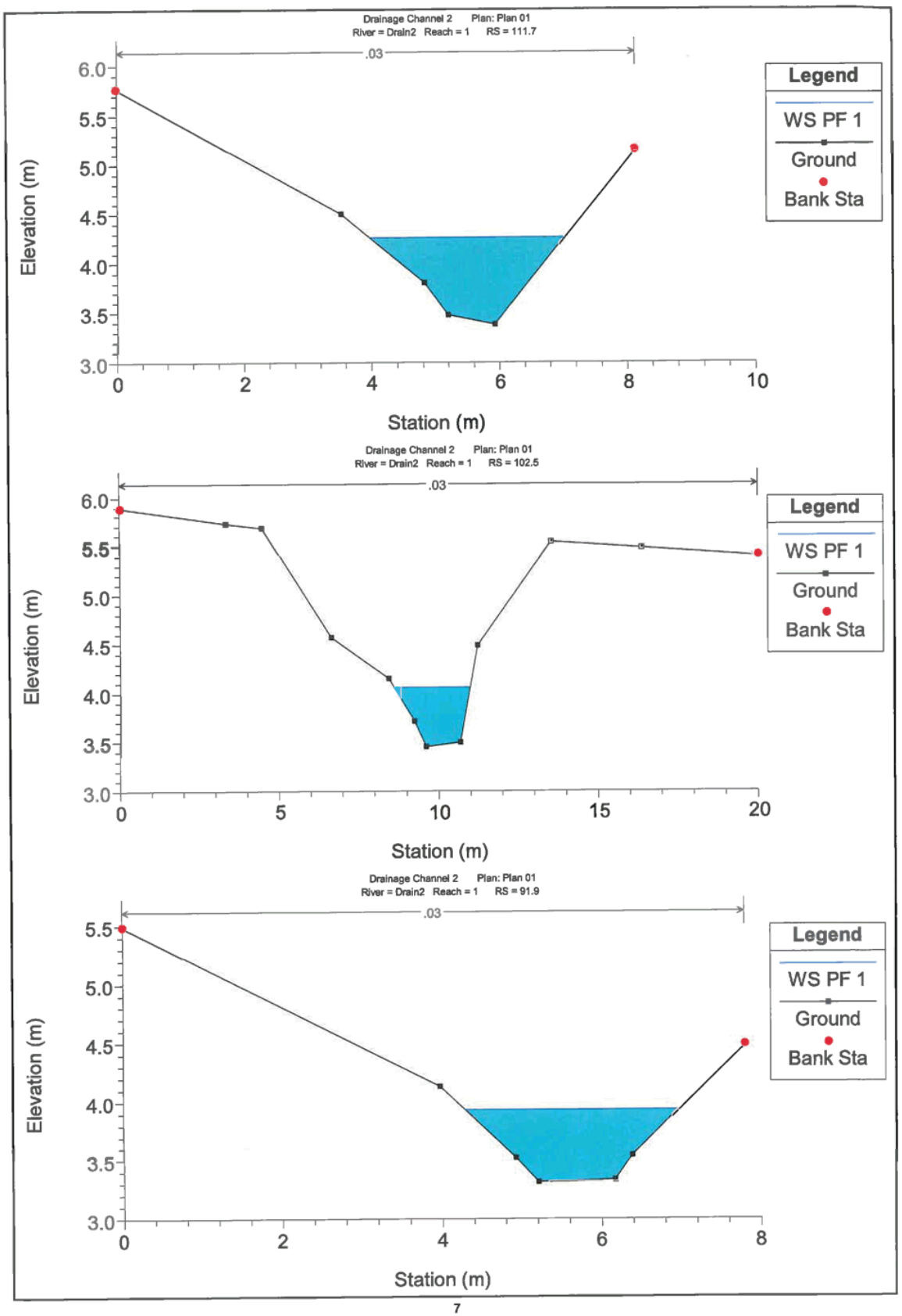
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Bank Sta
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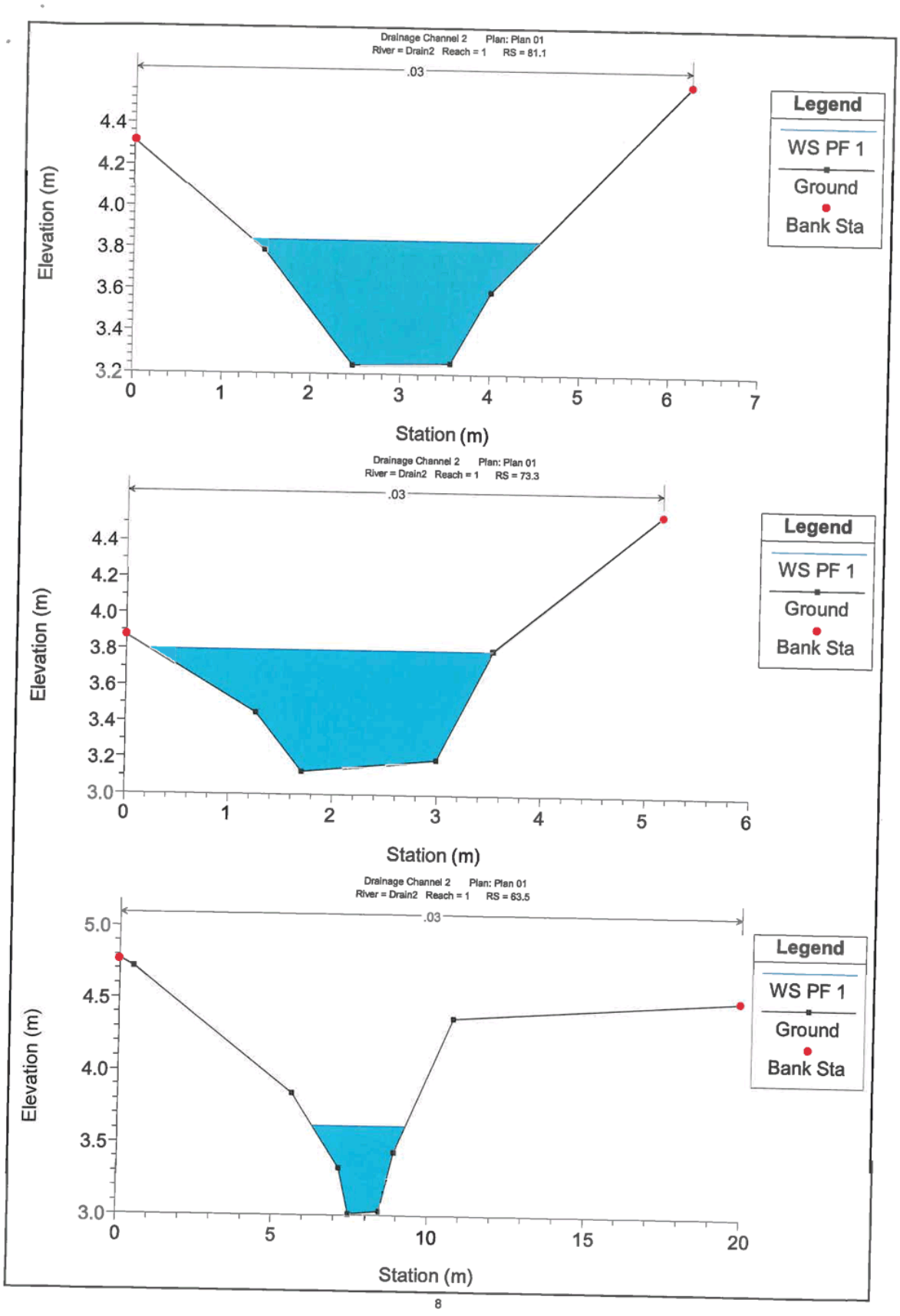
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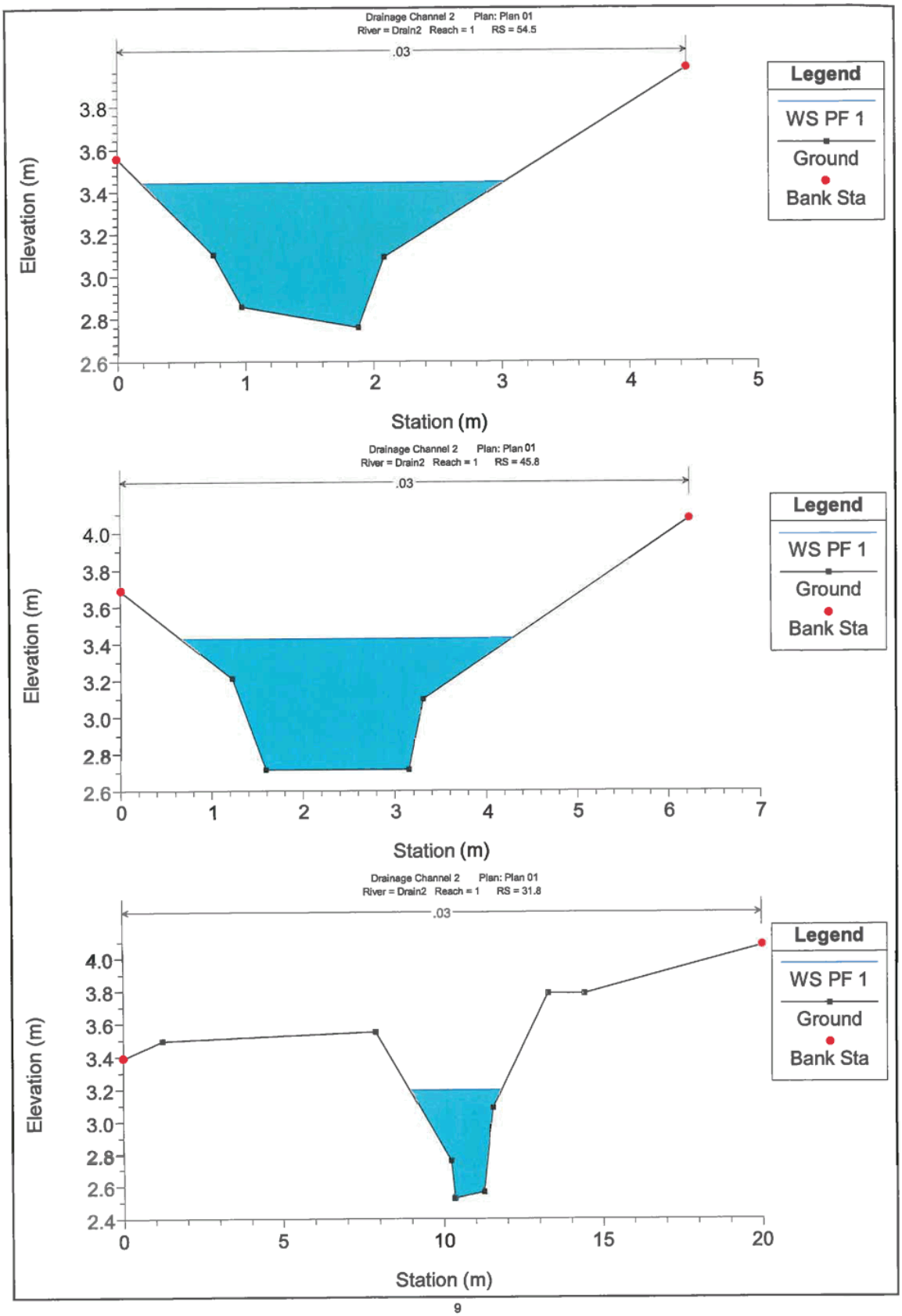
8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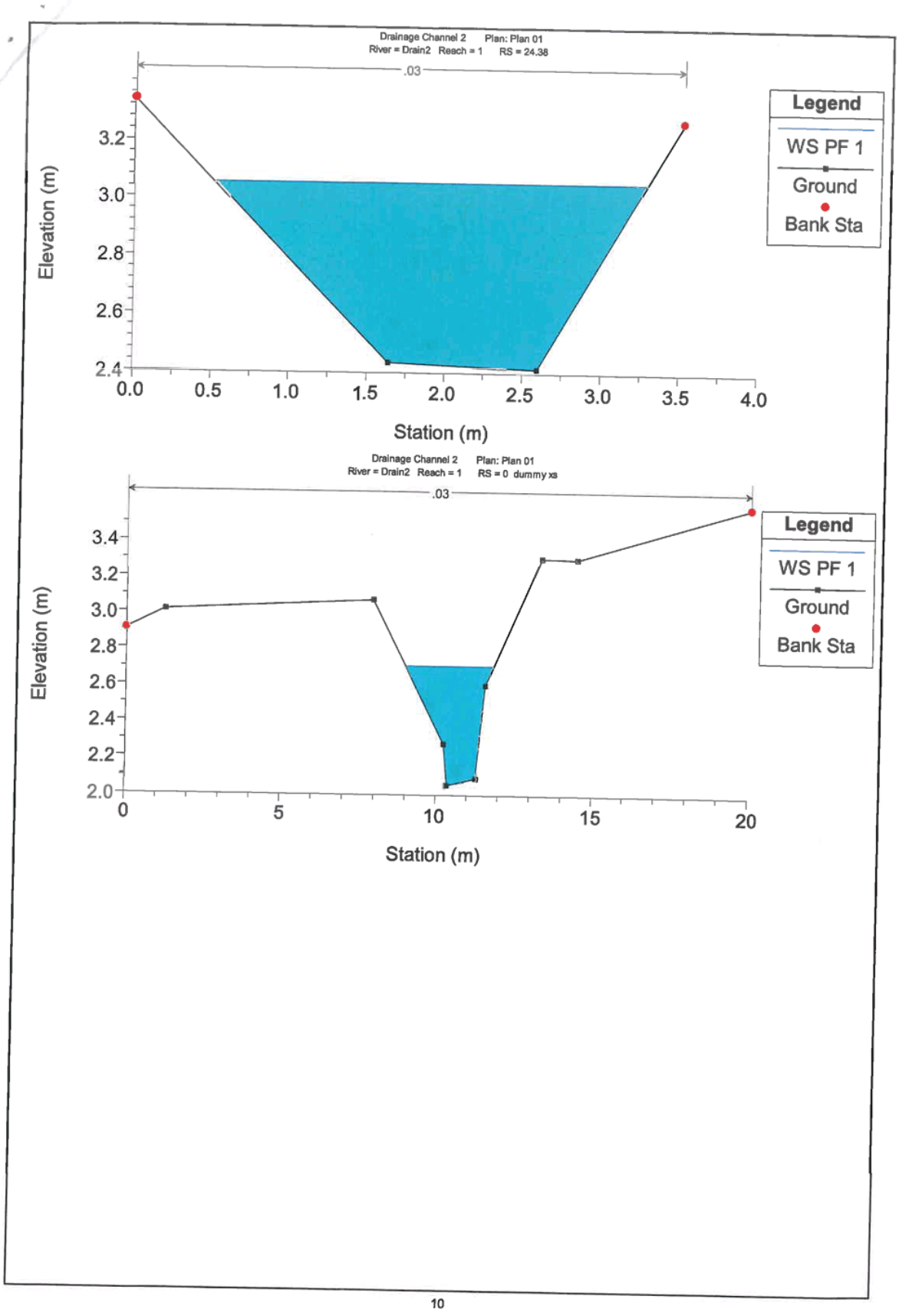
9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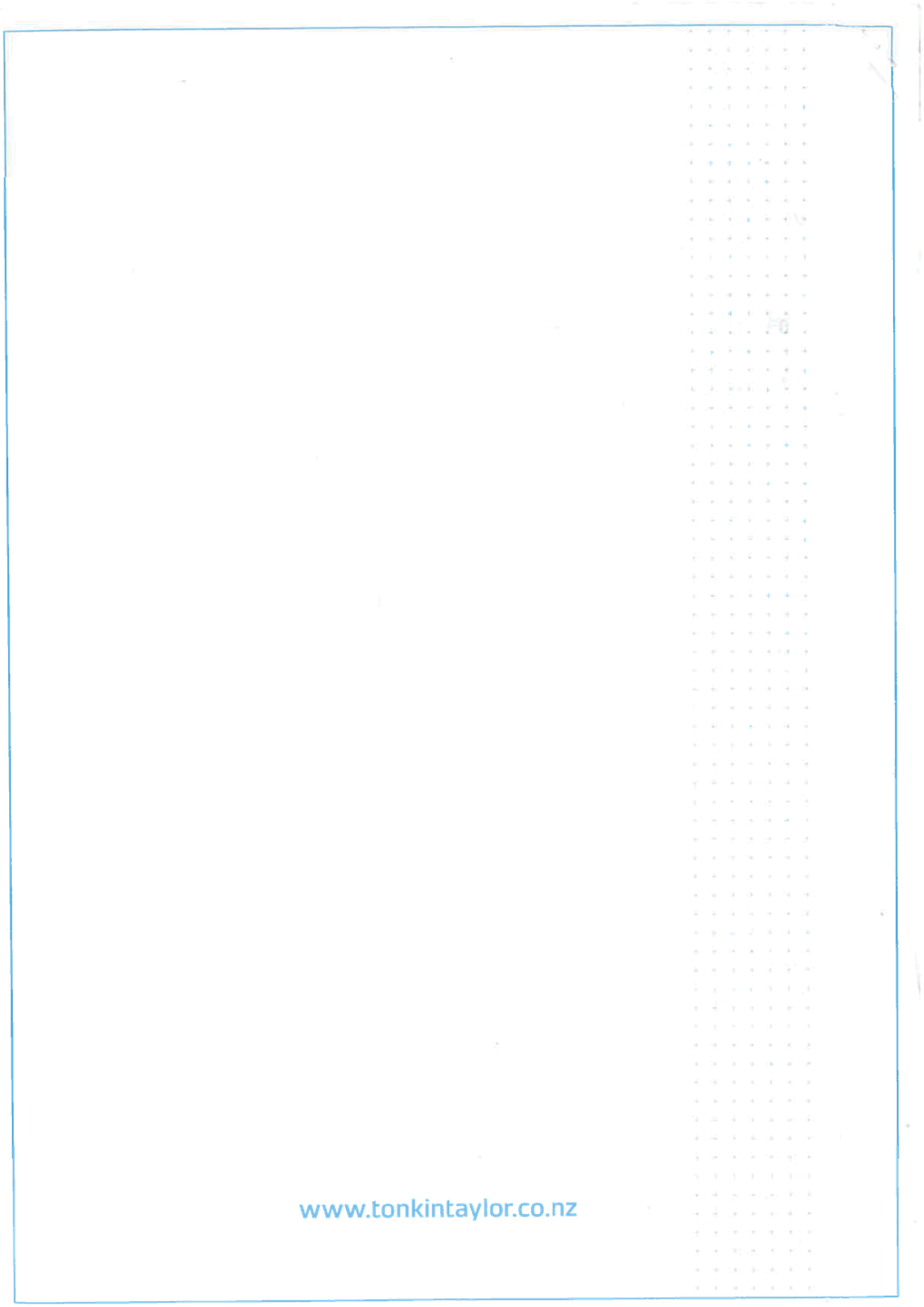
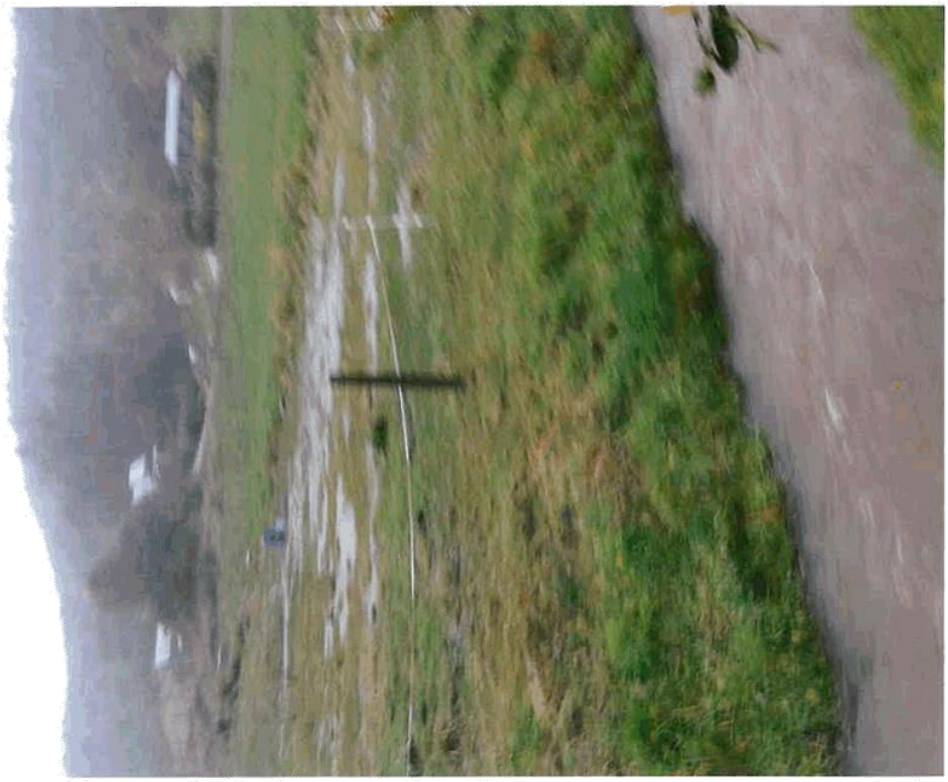
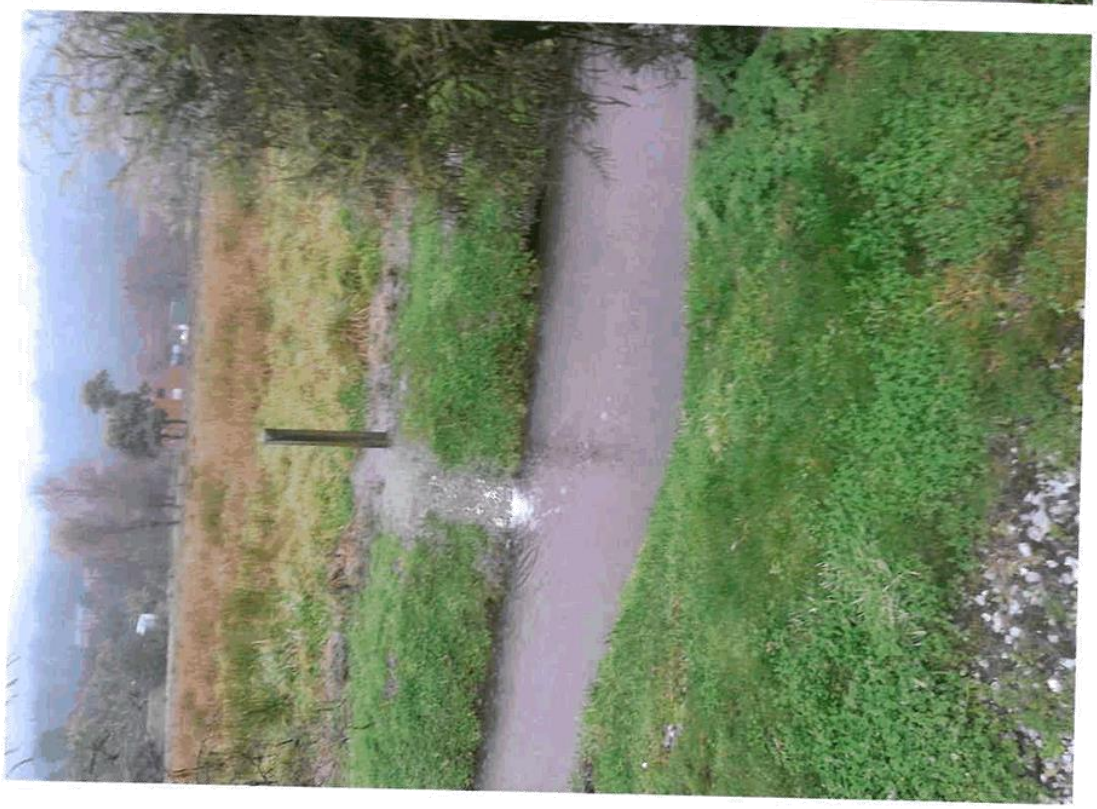

www.tonkintaylor.co.nz





**Emma Gee**

**From:** Lynne Hall
**Sent:** Wednesday, 18 July 2018 11:11 a.m.
**To:** Paul Sangster; Sue Brown; Golden Bay Community Board
**Cc:** Beryl Wilkes
**Subject:** Village Green melia tree

Greetings everyone

This is to let you know that after several attempts to save the poisoned melia tree at the Village Green, we have come to the decision that the tree needs to be removed. The tree has gone into further decline over the winter months and Jack Stevens has informed us that roughly 40% of the trunk is completely dead, giving the tree no support to stop it falling into the neighbouring building. In addition, the tree roots are lifting the pavement.

We would like to remove the tree as soon as possible, followed up with grinding out the tree stump. We will look to re-plant with a suitable tree over the next couple of months. The proposed replacement will be planted slightly further back into the Green.

Please let me know if you have any questions or concerns about this.

Kind regards
Lynne

**Lynne Hall**
Horticultural Officer – Motueka & Golden Bay
DDI 03 543 8492 | **Mobile 027 499 6798** | Lynne.Hall@tasman.govt.nz
Private Bag 4, Richmond 7050, NZ

tasman district council

tasman



# Submission Form – Representation Review 2018

***Tasman District Council is reviewing its representation arrangements as required under the Local Electoral Act 2001, and resolved its Initial Proposal at a meeting on 24 May 2018***

***The Initial Proposal is for a Mayor elected over the whole district, and 13 councillors elected over five wards as follows:***

*Golden Bay Ward – two councillors, Motueka Ward – three councillors, Lakes/Murchison Ward – one councillor, Moutere/Waimea Ward – three councillor, and Richmond Ward – four councillors.*

*The proposal includes the retention of the Golden Bay and Motueka Community Boards, with four members being elected to each, and the respective Ward councillors appointed to the Boards.*

***More details, including the full initial proposal, Council report and a map of the Wards, can be found on Council's website.***

*We want to hear your feedback on this Initial Representation Review Proposal -*

**Do you support Council's initial proposal?** ☑ **Yes** ☐ **No** ☐ **Don't Know**

**Please give your reasons, and if appropriate, your suggested alternative proposal:**

The Golden Bay Community Board strongly supports the initial proposal and agrees with the status quo.

***Continue on a separate sheet if necessary***

***SUBMISSIONS CLOSE: 9 JULY 2018***

*(Please note all information in your submission will be made available to the public)*

Tape Here

2. Fold here

Freepost Authority 172255

Free

Tasman District Council Representation Review 2018
Private Bag 4
Richmond 7050

tasman district council

Please fold both ends of this form inwards along the dotted lines in order and fasten with tape where indicated above. 1. Fold here

Your name: Emma Gee C/- Golden Bay Community Board

Your postal address: 78 Commercial St, Takaka Post Code: 7110

Your email address: gbcb@tasman.govt.nz Your contact phone number: 525 0054

☐ I/we wish to be heard in support of my/our submission at a hearing on 18/19 July 2018 *(we will be in touch with a time and date)*

**Please post/deliver this submission form to reach Council by 9 JULY 2018.**

**For more information visit: http://www.tasman.govt.nz/policy/public-consultation or phone 03 543 8554**

## Val and Robert Brownlie

**From:** Val and Robert Brownlie [robertnval@xtra.co.nz]
**Sent:** Friday, 20 July 2018 1:01 p.m.
**To:** 'abbie.langford22@gmail.com'
**Subject:** Ligar Bay Subdivision Concerns
**Attachments:** Ligar Bay Subdivision Proposal.docx

Hello Abbie

Please find attached a letter of concern regarding the Ligar Bay subdivision proposal for storm water disposal and process of notification.

As a limited notification was applied for by the applicant, Ligar Bay Development Limited, it was deemed that only five property owners were required to be notified of this application. Two of these five owners have undeveloped land beyond the proposed enclosure of an existing waterway(Drain 2 – currently an existing waterway) and do not live on the land. One of these five notified landowners currently have their land on the market after a short period of ownership, and have already signed an agreement. Only one of the remaining notified landowners is a permanent resident.

We have been informed by a TDC planner that as an owner who was not notified, any submission would not be tabled. As our Community Board Chairman I am forwarding you our concerns to be presented to the Tasman District Council. Signed written copies have been prepared for Tasman District Councillors Paul Sangster and Sue Brown and yourself which **will** be delivered to the Golden Bay TDC office today.

Cheers

*Robert and Val Brownlie*

robertnval@xtra.co.nz
Phone: 03 5259219
Cell: 027 5259219 (Val) 027 4759219 (Robert)

Robert and Valerie Brownlie

1108 Abel Tasman Drive

Ligar Bay Takaka 7183

20 July 2018

**Attention:** **Abbie Langford**

**cc:** **Paul Sangster**

**Sue Brown**

**Forward to Tasman District Mayor and Councillors**

Hello Abbie.

**Concerns regarding proposed subdivision by Ligar Bay Developments Limited**

We recently returned from holiday and read in the Golden Bay Weekly (13 July 2018) about the proposed Matenga Road subdivision submissions and on enquiry was informed that as we were not affected by the proposal we did not need to be notified which had further implications. We have concerns that need to be addressed in the planning stage not at the remediation stage as has happened in subdivisions in Pohara.

- **Non notification of the application and submission for consent.**

It was a limited notification which excluded us. We have had considerable stormwater runoff from this land in the past.

An email from the applicant (Ligar Bay Developments Limited) stated " ... it would be better to continue this application on a limited notification basis as it may be the fastest way forward".

(email From: ligarbay developments2hotmail.com To: Mark Morris; Jenna Wolter and Jane Hilson, 13 June 2018 10:14 am)

As the longest fulltime resident in the area adjoining the subdivision, with knowledge of the affects of the stormwater across this land, we should have been notified. This is in an area... "considered that the downstream network does not have the capacity to receive additional stormwater" (Notification/Non-Notification Decision Report RM171011 – Discharge of stormwater from lots; page 7)

Other residents adjoining this subdivision should be notified as properties will be affected.

1

- **The flooding hazard**

The proposal is to remove the existing waterway (Drain 2) by piping the water underground. It is proposed that a section of this drain would remain open and the additional flows would then be able to run along the existing Right of Way A as an overland flowpath. Water will take its natural course. This will be onto our properties.

It is also proposed to raise the height of the subdivision sections which border the Right of Accessway A and contour the land. This gives us further reason for concern.

The existing waterway, Drain 2, runs at full capacity during heavy rain which is not considered as a 20 year event.

We have concerns about the planning of the water drainage and witnessed the affect stormwater has had on several properties including ours, which was not "negligible".

Further concerns arise from the fact that developers have tried in previous years to subdivide this land. Who assumes responsibility if this project cannot be completed and rain event requirements were not fully met?

We would appreciate being involved in the process of the subdivision development and believe the adjoining property owners to Right of Way A should be notified.

Yours sincerely

R.K. Brownlie V.J. Brownlie

Robert and Valerie Brownlie

2

**Grandstand at Golden Bay Recreation Park - Matters which TDC considers need to be addressed in a restoration proposal**

| | |
|---|---|
| **Report to:** | **Workshop on the Grandstand** |
| **Meeting date:** | **23 July 2018** |
| **Authors:** | **Susan Edwards, Community Development Manager**<br>**Dennis Bush-King, Environment and Planning Manager** |

## 1. Purpose

1.1 The purpose of this report is to present for discussion the matters that the Council consider need to be addressed in any restoration proposal for the Grandstand at the Golden Bay Recreation Park. The information on regulatory and compliance processes is provided in order to help inform decision making in line with the Council resolution of 28 June 2018.

## 2. Background

2.1 On 28 June 2018 Council passed the following resolution in relation to the Grandstand at the Golden Bay Recreation Park.

**Moved Cr Brown/Cr Sangster**

**CN18-06-07**

1. **requests that the Chief Executive prepares a report on the Golden Bay Grandstand for discussion at a workshop with Councillors, staff and key stakeholders ahead of the next Council meeting, on the options to leave the Grandstand in-situ; and in the meantime**
2. **invites the Golden Bay Restoration Society or the Golden Bay Community Grandstand Trust or any other entity to apply for a lease under the Reserves Act 1977 to allow use of the Grandstand building; and**
3. **agrees that subject to a successful lease application, the Grandstand stairs be re-instated by the lessee to allow use of the facility provided that the works otherwise comply with the Building Act 2004 and any health and safety obligations; and**
4. **agrees that the remaining funds allocated for demolition be made available to the lessee for restoration building works**

2.2 An initial workshop between representatives from the A&P Association, the Golden Bay Grandstand Community Trust and the Golden Bay Grandstand Society and Councillors, Community Board members and Council staff was held on 10 July 2018. The purpose of that workshop was to hold initial discussions on what information was required for the main workshop on 23 July, the scope and conduct of, and attendance at the workshop.

2.3 The outcome from that initial workshop was for Council staff to prepare a report to the workshop on 23 July covering the matters which they consider need to be addressed in any proposal for the restoration of the Grandstand.

2.4 This report provides the information requested.

2.5 As information, Council has cancelled the contract with Gibbons Construction for the demolition of the Grandstand and for the completion of the car parking requirements for the new Rec Park Centre.

2.6 A further point for noting is that Council's insurers have asked for the Grandstand building to be secured to protect the new Rec Park Centre. The company has requested that Council boards up the lower level windows and stops access to the upper Grandstand (maybe by netting). Council is currently trying to arrange for the boarding up of the windows and for securing the upper level of the Grandstand to ensure it cannot be accessed. The cost of this is small but is a project cost. Other requests such as lighting will take more time to organise.

2.7 A further outcome of the meeting on 10 July was for Council staff to call for expressions of interest in the GB Weekly for a proposal to lease the footprint of the Grandstand and for future ownership and restoration of the Grandstand. Council staff arranged for the advertisement to go into the GB Weekly, as requested. The closing date for registrations of interest is 27 July 2018.

**3. Proposal for the restoration of the Grandstand**

3.1 There are several legislative processes to be gone through in order to enable a lease of the footprint of the Grandstand at the Golden Bay Recreation Park and for the transfer of ownership of the Grandstand to enable its restoration and future use. The key processes are:

3.1.1 obtaining a consent from Heritage New Zealand to the alteration of an archaeological site under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPT Act);

3.1.2 undertaking a process under the Reserves Act 1977 to obtain a lease of the land occupied by the Grandstand; and

3.1.3 obtaining any building consent or other approvals for the restoration and use of the Grandstand.

**4. Heritage New Zealand consent**

4.1 Section 42(1) of the HNZPT Act states as follows:

> "Unless an authority is granted under section 48, 56(1)(b), or 62 in respect of an archaeological site, no person may modify or destroy, or cause to be modified or destroyed, the whole or any part of that site if that person knows, or ought reasonably to have suspected, that the site is an archaeological site."

4.2 We are aware that the Grandstand is considered an archaeological site under the HNZPT Act, given that the original part of the grandstand was constructed in 1899. Therefore, anyone proposing to undertake work on the building will need to discuss with Heritage New Zealand what its requirements may be. From the evidence presented at the Environment Court hearing on the Grandstand, it appears likely that any work will require an authority and a conservation plan to be prepared for the work by an approved (Heritage New Zealand) conservation architect. Heritage New Zealand have the ability to apply conditions to any consent, and to require the presence of an archaeologist during any work.

4.3 Council's experience with HNZPT Act consents is they take a reasonable amount of work to prepare and need to be accompanied by a report by a heritage architect and archaeologist. Applications can take a few months to be processed. Heritage New Zealand will be able to advise what it requires and what its timeframe will be. Ian Bowman has been engaged by the Trust previously and is no doubt aware of the requirements as he prepared a draft conservation plan in 2016, which could be used as a starting point for discussion.

**5. Lease under the Reserves Act 1977**

5.1 Section 54 of the Reserves Act 1977 states

> (1) "With the prior consent of the Minister, the administering body, in the case of a recreation reserve that is vested in the administering body, may from time to time, in the exercise of its functions under section 40, to the extent necessary to give effect to the principles set out in section 17,—
>
> (b) lease to any voluntary organisation part of the reserve for the erection of stands, pavilions, gymnasiums, and, subject to sections 44 and 45, other buildings and structures associated with and necessary for the use of the reserve for outdoor sports, games, or other recreational activities, or lease to any voluntary organisation any such stands, pavilions, gymnasiums, and, subject to section 44, other buildings or structures already on the reserve, which lease shall be subject to the further provisions set out in Schedule 1 relating to leases of recreation reserves issued pursuant to this paragraph:
>
> provided that a lease granted by the administering body may, with the prior consent of the Minister given on the ground that he or she considers it to be in the public interest, permit the erection of buildings and structures for sports, games, or public recreation not directly associated with outdoor recreation:
>
> (2) Before granting any lease or licence under subsection (1) (other than a lease or licence to which the second proviso to paragraph (d) applies), the administering body shall give public notice in accordance with section 119 specifying the lease or licence proposed to be granted, and shall give full consideration in accordance with section 120 to all objections and submissions in relation to the proposal received pursuant to the said section 120.

5.2 Sections 119 and 120 cover the requirements for public notification of any leasing proposal, the submission process, the hearing process, etc. Council, as the reserve administering authority, must give a minimum of one month for submissions. The submissions will need collating. Council will need to hold a hearing of the submission, to deliberate on them and to make decisions on the matters raised in the submissions, prior to making a decision on whether to grant any lease. The process from receipt of a proposal is likely to take 5 to 6 months.

5.3 **Prior to publicly notifying a lease proposal, Council will need a formal proposal from an entity for consideration. If Council receives more than one proposal it could decide to either choose one proposal to consult on or alternatively to notify both lease proposals and call for submissions on both concurrently.**

5.4 Any lease proposal will need to cover a range of factors, including:

- the legal entity to which the lease is to be granted;
- proposed term of the lease agreement;
- the use(s) to which the building will be put once it is restored, including how it will work with, and not compete with, the Rec Park Centre;
- how it will meet the needs of users of the reserve;
- the proposed lease area and how that area may change if/when the squash court, rear lean-to and rugby clubroom extension are removed;
- the restoration proposal and the scope of works for restoring the Grandstand and an indication of the timeline for the work to be completed;
- how the lessee will work with the other organisations involved with the reserve and how the restoration work undertaken will have minimal impact on other reserve or building users;
- information on how health and safety matters will be addressed, including protecting the health and safety of other reserve users while demolition and restoration works are undertaken to comply with the Health and Safety at Work Act 2015;
- access to the Grandstand by the public during events at the reserve, and for the A&P Show each year following restoration; and
- any other matters that may be of public interest.

5.5 Council had obtained the agreement of the Squash and Rugby clubs to the demolition of their buildings, but they have not agreed to the transfer of what were their buildings to another organisation prior to demolition. Is this an issue that needs to be worked through by the proposed lessee and Council with those clubs?

**6. Building and Resource Consents**

6.1 If Council agrees to the lease, the lessee will need to apply for a building consent to restore the Grandstand. Section 112 of the Building Act applies in relation to any alteration that may be intended arising from the lessee exercising the lease. In compiling an application, the lessee will be required to present:

- a fire report – the proposed use of the lower area will have an impact on whether there needs to be fire-rating between the lower and upper levels. The report will also need to cover fire egress, what fire protection measures (e.g. fire alarms) may be needed, fire rating between the Grandstand and Rec Park Centre, etc;
- a structural engineers report – to cover the structural integrity of the remaining building when the squash courts, rear lean-to and rugby club extension are removed, etc;
- an accessibility report – to address accessibility for people with disabilities, etc; and
- information of any new specified systems (e.g. fire alarm, emergency lighting, signage etc.) which will trigger a requirement for a compliance schedule, and thereafter, an annual 'Building Warrant of Fitness' (BWOF).

6.2 Other factors that will need to be addressed in the building consent are:

- car parking – as a stand-alone building the grandstand would require a specific number of carparks unless a resource consent waiver is sought and granted.

  Note that the Council has to secure enough car parking spaces for the Rec Centre or otherwise amend the building consent before it can obtain a Code Compliance Certificate. While the appendages to the building remain in place this constrains our ability to provide spaces in proximity to the centre;

- provision of toilet and utility facilities for Grandstand users. The existing toilets have been decommissioned due to stormwater flowing into the gully traps during storm events and causing overflows from the sewerage system into waterways leading to the Takaka River. Council's Engineering team issued a "notice to fix" on the Reserves and Facilities team to stop the sewerage overflows. The gully traps have been filled with concrete to stop the stormwater flowing into them; and

- on the basis of present knowledge (including suspected class D soil conditions not yet determined), earthquake strengthening is likely if the occupancy load exceeds 300 people. It would be expected that any structural report will cover this issue.

- not all asbestos has been removed and the lessee will need to comply with the Health and Safety At Work (Asbestos) Regulations 2016. Council is aware that asbestos containing materials are present in the cladding to the north east elevation of the Grandstand, and the substrate to the vinyl flooring in the rear lean-to (this will be an issue to address when this part of the building is demolished).

6.3 During the site visit on 11 July, Council's building inspectors identified the following list of specific matters relating to the Grandstand building, which they consider need addressing:

- the electrics have been disconnected, the breakers removed, and many of the light switches and sockets are now in a poor state of repair (along with the associated wiring);
- the "announcers" booth at first floor level is a significant impediment to the means of escape from fire (if the Grandstand is opened to the public);
- the current condition, and therefore structural integrity, of the timber piles is unknown (could not be observed without invasive testing);
- several of the timber lintels to the rear wall of the building, under the Grandstand, are incorrectly formed, sized and poorly fixed;
- several of the primary studs to the rear wall of the building, under the Grandstand, aren't continuous to supporting elements (e.g. not bearing on lintels);
- several of the diagonal braces to the ground floor walls, under the Grandstand, are incorrectly formed, and not continuous;
- there was evidence of significant mould to the underside of the rugby clubroom flat roof plywood. This would imply the roof membrane has failed in a number of areas;
- one of the rafters to the rugby clubroom has been badly damaged (appears to have been *drilled* in two places);

- there is currently no fire separation to the underside of the Grandstand floor. There are currently significant piles of combustible materials laid across the ground floor (directly under the Grandstand);
- concerns about the support posts to the front elevation of the Grandstand that have been cut off and bolted to pairs of the flat roof joists to the rugby clubroom; and
- many of the primary structural wall framing members, under the Grandstand, show signs of borer infestation.

**7. Other matters for consideration**

7.1 Reinstallation of the stairs – the Council's resolution states that the stairs cannot go up until the lease is in place, which also means Council will have transferred the ownership of the building to the lessee. The reinstallation of the stairs may also be subject to building works that require a building consent.

7.2 Rec Park Centre use as a civil defence welfare centre – it is important for the parties and the public to realise that the new Rec Park Centre cannot be used as a civil defence welfare centre or for overnight stays due to concern over fire issues with the Grandstand so close. If, however, a sleeping occupancy is introduced to Rec Park Centre at any time in the future, additional fire separations, which will need to be done under a building consent, will be a matter for the Council to address.

7.3 Transfer of the remaining demolition budget – standard Council process is for a funding agreement to be entered into with a party receiving Council funding. Council's usual practice is to pay out on receipt of invoices by the lessee for work undertaken toward construction (or in this case, restoration) of a building. To date, Council has spent $37,000 of the $100,000 budget on costs incurred by Gibbons and a further $5,000 on an asbestos report, totalling $42,000. This leaves $58,000, and there is a question as to whether this budget is be used to secure the Grandstand building to meet Council's insurers requirements.

7.4 Retention of the Grandstand will require a formal amendment to the existing building consent for the Rec Park Centre. Council will have to arrange for this, the cost of which would need to be met from some budget?

7.5 The Council is aware that the Trust and A&P Society has other matters to discuss which were raised in a proposed Settlement Offer in relation to current legal proceedings. If they are to be advanced and go beyond the scope of the current Council resolution, further Council direction would be required.

**Emma Gee**

**From:** Abbie Langford <abbie.langford22@gmail.com>
**Sent:** Tuesday, 24 July 2018 6:26 a.m.
**To:** Emma Gee
**Subject:** Fwd: Letter of Support Living Wood Fair

for correspondence

---------- Forwarded message ----------
From: **Living Wood Fair** <livingwoodfair@gmail.com>
Date: Fri, Jul 20, 2018 at 2:33 PM
Subject: Letter of Support Living Wood Fair
To: abbie.langford22@gmail.com, Grant Knowles <tribulldrums@xtra.co.nz>

Hello Abbie & Grant,

We are preparing a funding application with TDC for a Special Grant for the continuation of the Living Wood Fair as a yearly event on the Easter holidays.

I attach the Letter of Support that Grant wrote for us last November and my request would be to update this Letter and include a brief review of your experience of value of the inaugural Living Wood Fair last April 21/22 to the community of Tasman and Golden Bay.

Your support is much appreciated, we are in need of a financial injection to continue the development of this educational community event.

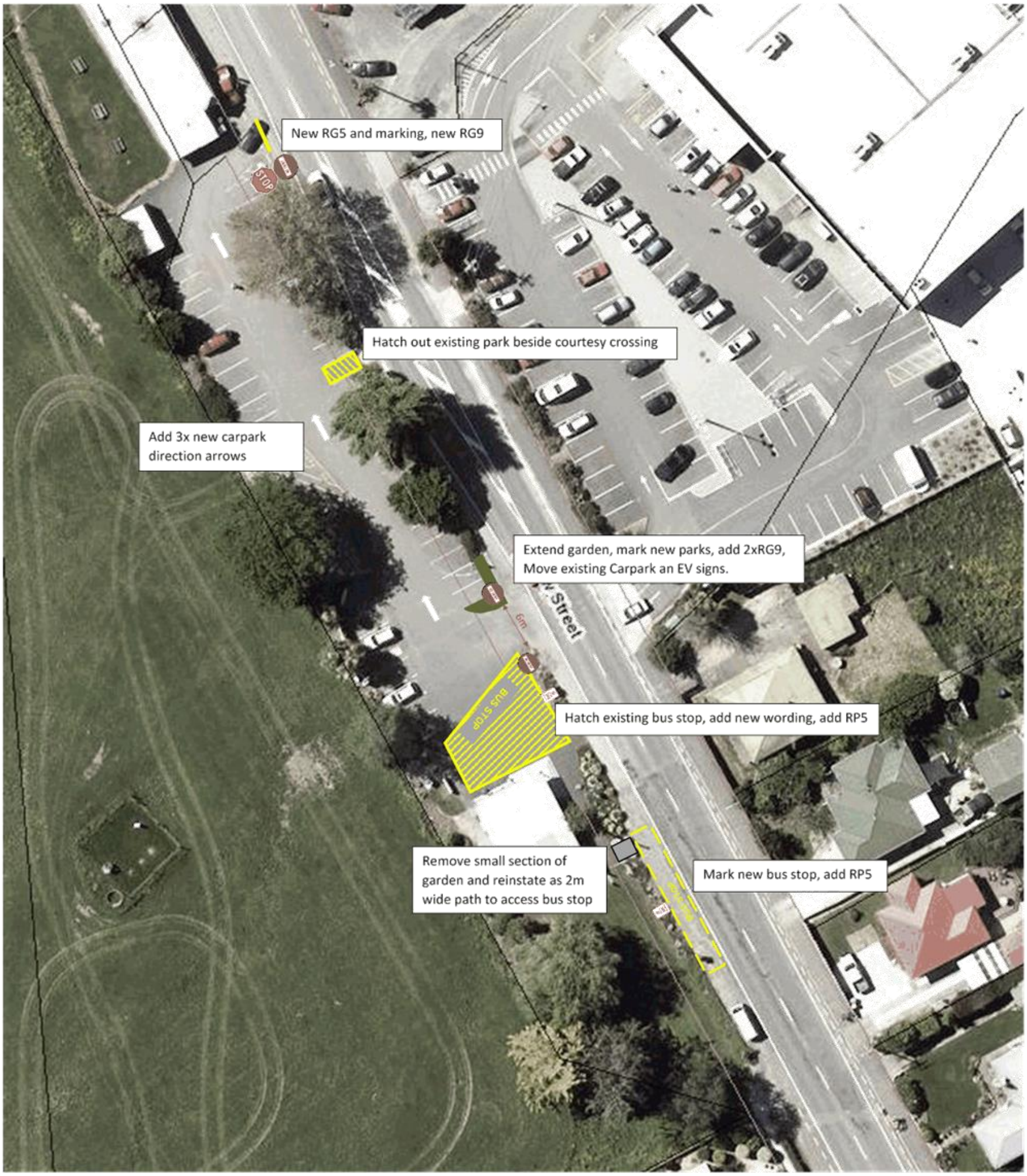
Kind regards,

Sacha Horton
Living Wood Fair
Committee Member & Promotions Coordinator

**LoS Community Board.pdf**

https://www.facebook.com/livingwoodfairnz/

1


New RG5 and marking, new RG9
Hatch out existing park beside courtesy crossing
Add 3x new carpark direction arrows
Extend garden, mark new parks, add 2xRG9, Move existing Carpark an EV signs.
Hatch existing bus stop, add new wording, add RP5
Remove small section of garden and reinstate as 2m wide path to access bus stop
Mark new bus stop, add RP5
STOP
6m
BUS STOP

**Emma Gee**

**From:** Graham Rimmer
**Sent:** Wednesday, 25 July 2018 12:24 p.m.
**To:** Golden Bay Community Board; Reception Takaka
**Subject:** Four Winds Pump Station and Rising main - Construction start

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Good Afternoon

As you may be aware I have taken over from Jenny Callaghan as the Project Manager for the Four Winds Pump Station and Rising Main

We are about to start construction on this pump station and rising main next to the Totally Roasted Café

The contract for this work has been awarded to Donaldson Civil Ltd and construction is expected to start on 27 August 2018 and finish by March 2019

We appreciate that these works may be disruptive and that those closest to the work may experience traffic and noise disruption. To minimise disruption, there will be no pipeline construction in December 2018 and January 2019, and no pump station construction between 14 December 2018 and 18 January 2019. For other time lines click on the link below.

All details can be found on the Tasman District Council's web page. Click here

Any questions please give me a call.

Many thanks

**Graham Rimmer**
Project Manager
DDI 03 543 8631 | Graham.Rimmer@tasman.govt.nz
Private Bag 4, Richmond 7050, NZ

tasman district council

**Emma Gee**

**From:** Abbie Langford <abbie.langford22@gmail.com>
**Sent:** Wednesday, 25 July 2018 5:57 p.m.
**To:** Emma Gee
**Subject:** Fwd: FW: Critique
**Attachments:** A Warning for Ligar Bay and Tata Beach Residents.pdf

For correspondence please

---------- Forwarded message ---------
From: **Roger May** <roger@tomorrowsforests.co.nz>
Date: Sun, 1 Jul 2018, 9:08 PM
Subject: FW: Critique
To: Sue Brown (Councillor) <sue.brown@tasman.govt.nz>, Paul Sangster (Councillor) <paul.sangster@tasman.govt.nz>, Abbie Langford <abbie.langford22@gmail.com>

Good morning Sue, Paul, Abbie,

See below and attached (on the recommendation of David Ogilvie).

I would be interested in your comments.

The Council holds copies of the two GNS reports (and the UoC management recommendations) if you need to read them (or I can email them to you).

I would like to know if any of you were provided copies of these reports by staff at the time.

Regards,

**Roger May**

Tomorrow's Forests Ltd

100 Strachan Road

R.D. 1 Motueka

NELSON 7196

Phone 03 526 8719

Cell 0274 893 043

1

www.tomorrowsforests.co.nz

**From:** David Ogilvie
**Sent:** Sunday, 1 July 2018 8:29 p.m.
**To:** Roger May
**Subject:** Re: Critique

Hi Roger,

Thanks for your critique. You should send it to the Golden Bay Councillors, plus a copy to the Community Board Chair Abbie Langford, & ask her to copy it for the other three Board members. (Her e-mail address is abbie.langford22@gmail.com )

Regards,

David Ogilvie

**From:** Roger May

**Sent:** Saturday, June 30, 2018 6:35 AM

**To:** David Ogilvie

**Subject:** Critique

Good morning David,

You may be interested in the attached critique. Can you please have a read and let me know if you think it should go to all Councillors.

Regards,

Roger

Tomorrow's Forests Ltd

100 Strachan Road

R.D. 1 Motueka

NELSON 7196

Phone 03 526 8719

Cell 0274 893 043

www.tomorrowsforests.co.nz

Item 0.0

Attachment 18

# A Warning for Ligar Bay and Tata Beach Residents

CRITIQUE OF TWO GNS SCIENCE CONSULTANCY REPORTS

The December 2011 Debris Flows in the Pohara-Ligar Bay, Golden Bay:
causes, distribution, future risks and mitigation options.
GNS Report 2012/305, December 2012

AND

Landslide Distribution at Ligar Bay resulting from the December 2011 rainstorm:
a GIS Analysis to inform exotic forest harvesting and management options
GNS Report 2013/184, September 2013

## INTRODUCTION – Report 2012/305, December 2012

GNS Report 2012/305, commissioned by the Tasman District Council, states:

Between 13th and 15th December 2011 the Tasman District experienced an extreme rainstorm which caused severe flooding, landsliding and debris flows which affected homes and properties and resulted in the declaration of a civil defence emergency.

and

The number of debris flows that occurred during the December 2011 storm in Golden Bay and also during a storm in the Tapawera area in 2010 has highlighted a hazard, that until now was either not recognised or regarded as occurring very rarely in the Tasman District. These areas are largely underlain by deeply weathered and highly erodible Separation Point Granite, a lithology which is reasonably common in Tasman District. The majority of these debris flows deposited their sediment on to fan surfaces which are favoured locations for housing and other development, and it can be expected that there will be increased pressure for such development in the future.

and

A significant amount of large woody debris was deposited on the fans, some of which added significantly to the structural damage of houses. Logging of the exotic forest in the steep catchment areas requires careful management to reduce the amount of slash. The optimal mix of vegetation cover to minimise the volume of sediment and woody debris carried by debris flows and debris floods requires further research.

However, it has been known for decades, if not a century, that extensive clearcutting of tall forest (including plantation) on Separation Point Granite will eventually result in this sort of disaster especially if a significant or extreme rainfall event occurs.

A key output of this GNS report is Appendix 4 re-created below:

LANDSLIDE DISTRIBUTION IN RELATION TO VEGETATION COVER

| Vegetation Type | Landslide bare ground cover ($m^2$) | Landslide bare ground cover (ha) | Area of Vegetation (ha) | $m^2$ of slip /ha | % |
|---|---|---|---|---|---|
| Grassland | 225,312 | 22.53 | 315 | 715 | 7.2 |
| Scrub | 85,437 | 8.54 | 136 | 628 | 6.3 |
| Indigenous forest | 162,335 | 16.23 | 278 | 584 | 5.8 |
| Exotic forest* | 70,525 | 7.05 | 225 | 313 | 3.1 |

* The area of landslide bare ground in exotic forest has been under-estimated – see section 4.2.2

The conclusion drawn from this table is that exotic (Radiata) plantation poses the least risk in an extreme rainfall event on this terrain. But three fundamental errors were made in the GNS analysis of land affected by landslides.

ANALYSIS ERRORS

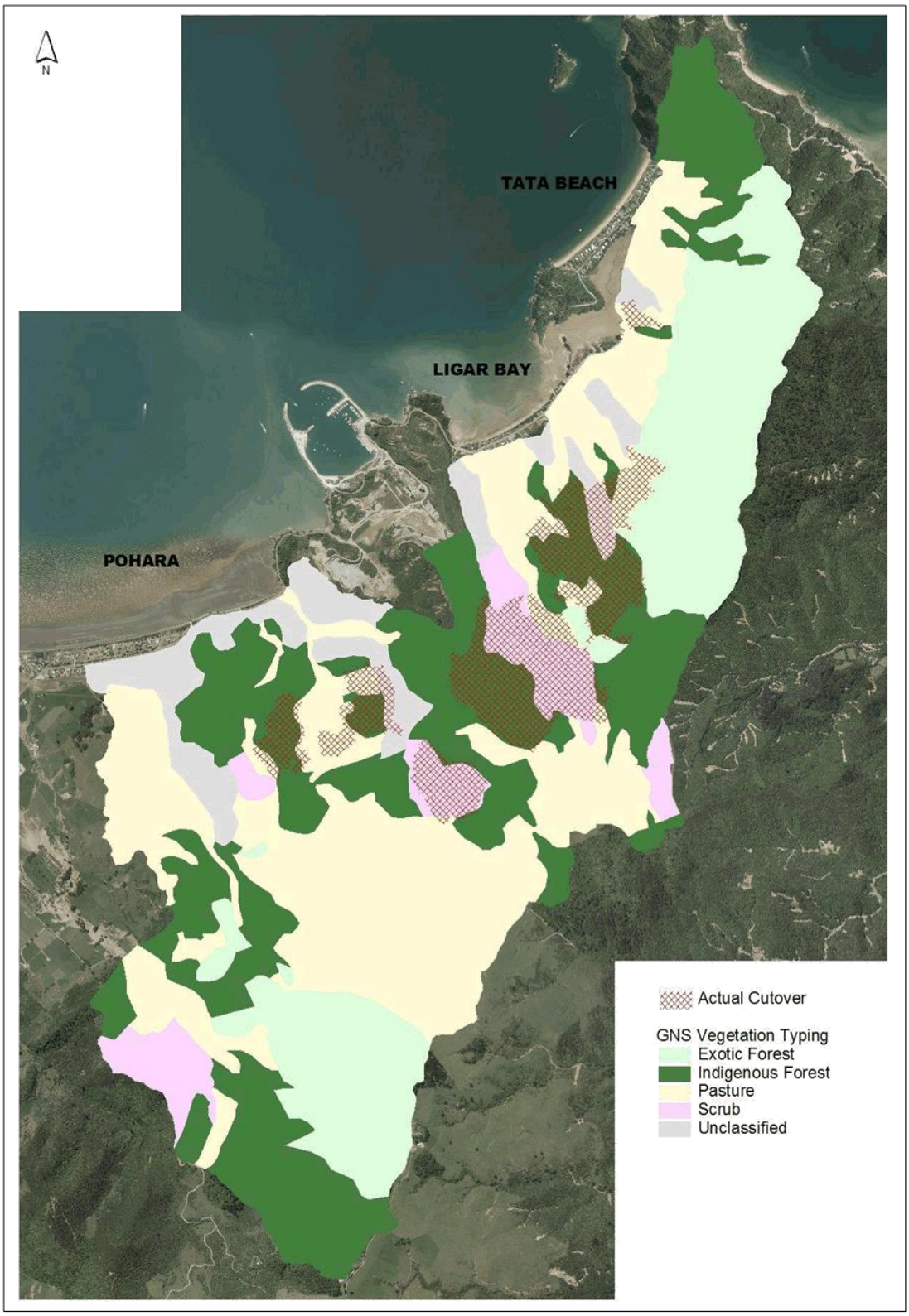
Firstly, the number of types of vegetation actually present in the area was insufficient to build an accurate picture of the differences between vegetation types. Only four vegetation cover types were identified: grassland, scrub, indigenous forest and exotic forest.

Secondly, the differentiation of vegetation types did not take into account the prior management of that vegetation. For example, there was no differentiation of standing plantation and harvested plantation land. This is a critical element because the run-off from harvested plantation land is substantially greater than that from standing plantation. Associated with the issue of harvested land is the elapsed time since harvesting. As the roots of harvested stumps decay, the soil-holding capacity of those root systems is significantly reduced. The decay process for Radiata pine lasts up to 7 years with the risk increasing with time until planted (or regenerating) root systems develop.

Similarly, there was no differentiation between tall native forest and regenerating native forest. This is also important because regenerating native forest does not have the same ability to intercept rainfall nor does it possess such well-developed root systems for holding the soil.

And thirdly, there were a significant number of polygons in which the vegetation typing by GNS was simply incorrect. Most importantly, 24 ha of cutover was classed as pasture, 32 ha of cutover was classed as scrub and 59 ha of cutover was classed as native forest. A total of 123 ha of cutover was misclassified.

The map of vegetation cover produced by GNS is shown on page 15 of the report (and reproduced below).


N
TATA BEACH
LIGAR BAY
POHARA
Actual Cutover
GNS Vegetation Typing
Exotic Forest
Indigenous Forest
Pasture
Scrub
Unclassified

The result of these three errors is that the conclusions reached were grossly misleading if not completely wrong.

A RE-ANALYSIS OF THE DATA

I requested and received from the Tasman District Council, the January 2012 aerial photography taken soon after the event as well as the GIS polygons of the areas of landslip and deposition (both valley infill and fan) produced by GNS.

Based on the aerial photography provided as well as aerial photography from 2005 and 2009, I then digitised the vegetation types. The older aerial photography allowed me to detect changes in vegetation cover. This process therefore took into account the effects of management, especially the approximate year of plantation harvesting.

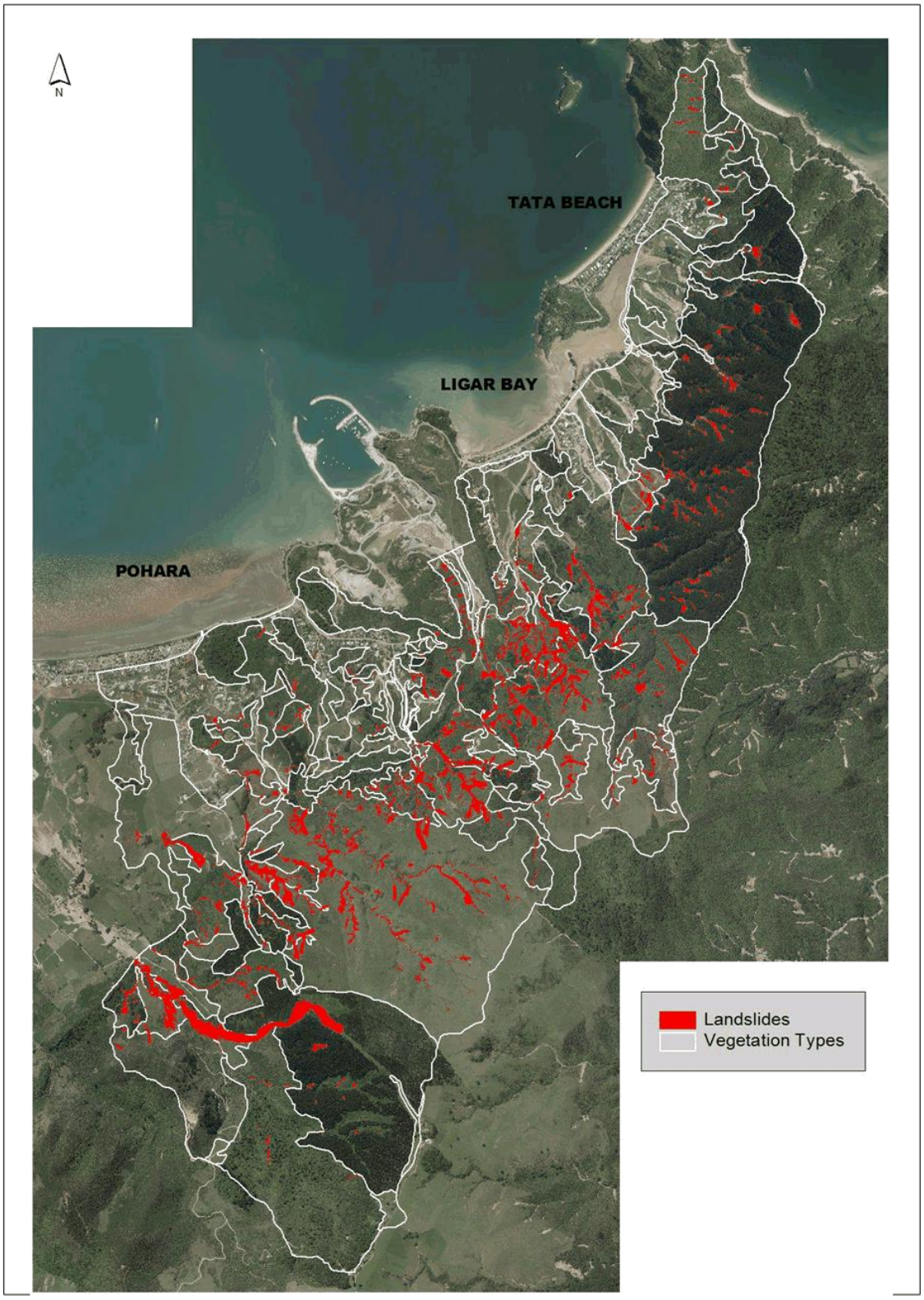
I identified 10 different vegetation or land cover types as at the time of the event. These were: standing exotic plantation, plantation cutover at least 6 years old, cutover at least 2 years old, cutover at least 1 year old, farm pasture, rough pasture, tall native forest, regenerating native forest, scrub, and residential areas (often with associated shelter and woodland).

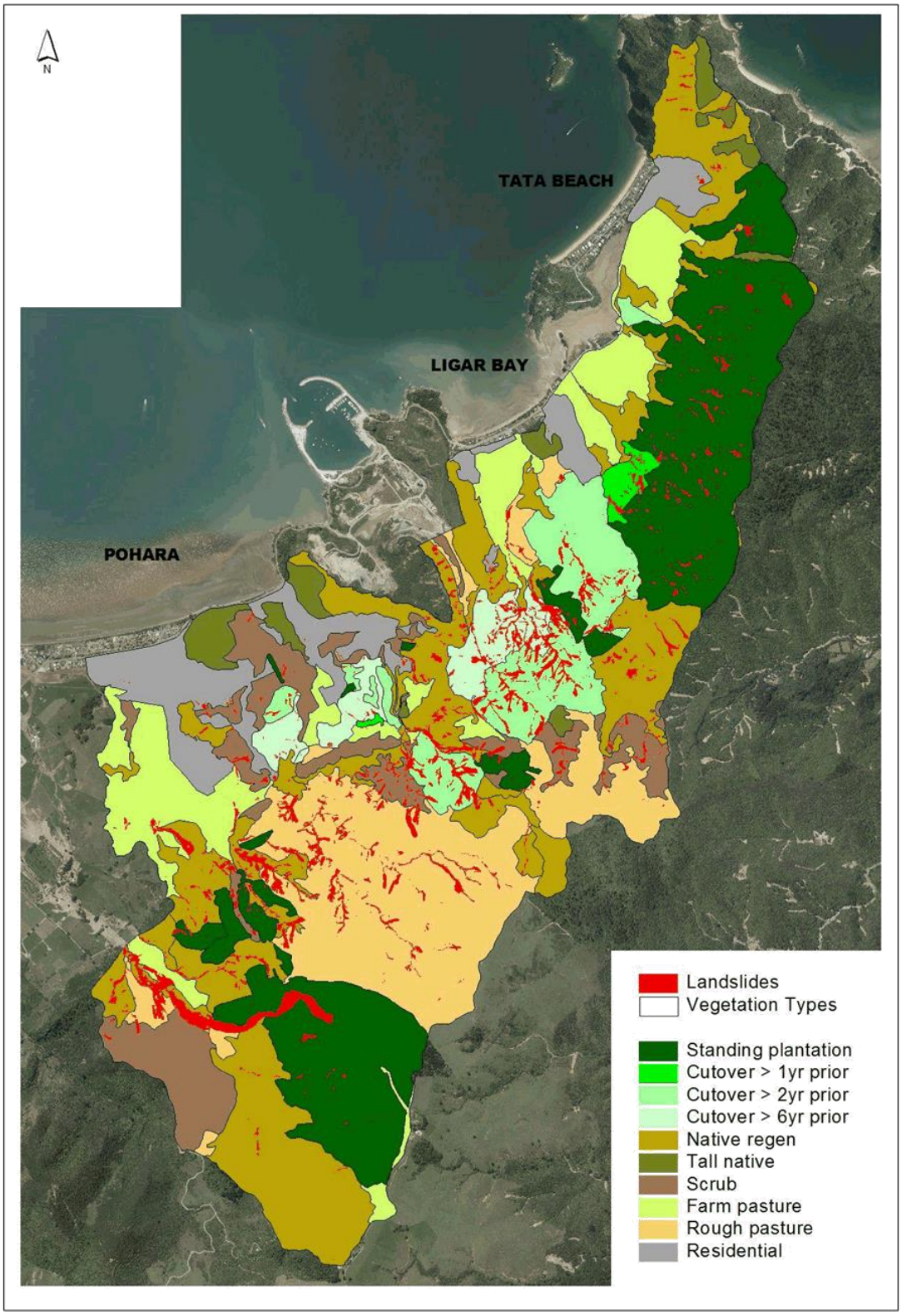
The resulting maps are shown overleaf.

The tabulated results of the measurement of landslides per vegetation type in decreasing size are:

| Vegetation Type | Landslide Area (ha) | Total Area (ha) | $m^2$ of slip/ha | % area | Average Slope (deg) |
|---|---|---|---|---|---|
| Cutover at least 6 years old | 4.39 | 34.5 | 1,271 | 12.7 | 16 |
| Cutover at least 2 years old | 9.59 | 80.7 | 1,188 | 11.9 | 20 |
| Cutover at least 1 year old | 0.86 | 7.8 | 1,104 | 11.0 | 18 |
| Rough pasture | 12.30 | 189.1 | 650 | 6.5 | 23 |
| Native regen | 12.81 | 256.8 | 499 | 5.0 | 21 |
| Scrub | 4.29 | 91.6 | 468 | 4.7 | 21 |
| Standing plantation | 7.64 | 239.4 | 319 | 3.2 | 26 |
| Farm pasture | 1.71 | 110.6 | 155 | 1.5 | 8 |
| Residential | 0.68 | 77.7 | 87 | 0.9 | 7 |
| Tall native | 0.09 | 28.8 | 30 | 0.3 | 16 |

This illustrates that old cutover associated with earthworks and harvesting of exotic plantation, particularly short rotation Radiata pine, is the most vulnerable to slope failure and consequent sediment and debris flows. And it is likely that tall native forest is the most stable.


N
TATA BEACH
LIGAR BAY
POHARA
Landslides
Vegetation Types


N
TATA BEACH
LIGAR BAY
POHARA
Landslides
Vegetation Types
Standing plantation
Cutover > 1yr prior
Cutover > 2yr prior
Cutover > 6yr prior
Native regen
Tall native
Scrub
Farm pasture
Rough pasture
Residential

It is therefore disturbing that GNS Report 2012/305 was then used by the Tasman District Council (TDC) to make decisions of further harvesting on the hills behind Ligar Bay and Tata Beach. But first the TDC commissioned a second report from the University of Canterbury with further mapping done by GNS.

INTRODUCTION – Report 2013/184, September 2013

GNS Report 2013/184, commissioned by the University of Canterbury (UoC) on behalf of and at the request of the Tasman District Council, states:

This report presents the results of a study to assess the landslide susceptibility map [and accompanying management report] for an area of soon-to-be harvested exotic plantation forest on the steep hills between Tata Beach and Ligar Bay, northeast of Takaka in Golden Bay. The area is underlain by highly erodible Separation Point Granite, and a recent rainstorm highlighted the potential debris flow hazard to communities on fans at the base of these steep, forested catchments.

and

[In December 2011] these debris flows and debris floods deposited large quantities of sediment and woody debris onto fans at the base of these hills, severely damaging a number of houses and Council assets in a subdivision in Nyhane Drive and the Pohara Valley settlement. The cost of this damage was estimated to be more than $10M. This debris flow/debris flood hazard was hitherto unrecognised.

and

The purpose of this report is to provide the Tasman District Council, land owners and P F Olsen Ltd with information on the landslide hazard on the steep soon-to-be harvested [136 ha of] exotic forested catchments behind Ligar Bay.

FAULTY LOGIC

It had been noticed by the parties (TDC, GNS & UoC) that most of the landslides within the exotic plantation that remained standing after the 2011 event had occurred in the valleys and gullies (with a rider that at least that's what was visible in the aerial photography). This was apparent from the maps in the previous GNS report. See map of area on next page.

LiDAR data was obtained by P F Olsen which GNS used to analyse and map the slopes within the standing plantation using GIS. Slopes ranged from 0 to 60 degrees and these were then categorised into slope classes of 5 degrees. In addition, the streams exiting the plantation were mapped using the LiDAR data. The GIS was then used to map a series of 'buffers' around each stream at intervals of 10 metres.

These two datasets (slope classes and buffer distance from a stream) were then combined to produce a 'risk index' map in which the steepest land nearest a stream was deemed to be the most susceptible to slipping, the mid-slopes less susceptible and

the spurs and ridges the least susceptible. This map was then used as the basis for a (UoC) report outlining required management practices.

The plantation behind Ligar Bay and Tata Beach (now mostly harvested)

However, what this mapping methodology overlooked was that it was based on an analysis of landslides within standing (Radiata) plantation. What should have been considered was the risk and erosion susceptibility after harvesting and earthworks.

An actual example of this risk was just one kilometre southwest on the hills behind Pohara and Ligar Bay in the area covered by the previous GNS report ( Report 2012/305). But unfortunately that GNS report hadn't identified any risk from cutover because cutover land wasn't even included in the vegetation analysis.

***The upshot of this, especially now that much of the 136 ha of Radiata plantation has been cut, is that Ligar Bay and Tata Beach are at serious risk over the next 5 years or so of inundation and damage if and when another large or extreme rainfall event hits the area.***

Roger May
Tomorrow's Forests Ltd
Orinoco
Nelson 7196
roger@tomorrowsforests.co.nz

23rd June 2018

**Emma Gee**

**From:** Abbie Langford <abbie.langford22@gmail.com>
**Sent:** Thursday, 26 July 2018 10:28 a.m.
**To:** Emma Gee
**Subject:** Fwd: NO resealing inGB last two years . Attn:: GB Com Board

For correspondence

Thanks

---------- Forwarded message ---------
From: **rl** <uttakaos@xtra.co.nz>
Date: Thu, 26 Jul 2018, 10:24 AM
Subject: NO resealing inGB last two years . Attn:: GB Com Board
To: averill grant <averillgrant@hotmail.com>, Abbie Langford <abbie.langford22@gmail.com>, <info@tasman.govt.nz>

Attn GBCommunity Board

Hi Averill +co , Zero Km resealed in 2018 and bugger all in 2017.

You may have seen this but it worth another look. I had no feedback from the community Board.

1/ i think it is a community health and safety issue

2/ people may 'forget' over time , having passed a hundred times safely. the effect of the signs, may well wear off .

3/ people trust the NZTA to maintain the roads and the Truth will be a surprise to them ( much as with TDC) so this info should be public NATION wide.

4/ at the North end of Puramahoi the warning signs only apply to a few hundred meters of SH60. It could have been fixed recently but the machinery left
having only done a short length of repair at Milnthorpe. aprox 4Km was in program . Quote below
"

*"It is confirmed that the Watercutting Subcontractor started work on Takaka Hill on Saturday (2nd June) and will be progressing along SH60 through Golden Bay this week. 3,960m2 is programmed to be water-cut (4,470m2 was done last year)."*

5/ preferably , live could be saved.

Regards
Rod Langford
Onekaka

1

.....

-------- Forwarded Message --------
**Subject:**FW: SH60 "slippery when wet" signs Tak -Cwd
**Date:**Wed, 6 Jun 2018 20:43:59 +0000
**From:**Emma Gee <Emma.Gee@tasman.govt.nz>
**To:**'uttakaos@xtra.co.nz' <uttakaos@xtra.co.nz>

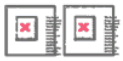
Hi Rod

Please see a response to your recent email to the Golden Bay Community Board from NZTA.

Kind Regards

Emma

**Emma Gee**
Team Leader Customer Services - Takaka
DDI (03) 525 0054 | Emma.Gee@tasman.govt.nz
PO Box 74, Takaka 7142, NZ





**From:** Gareth Baxter <Gareth.Baxter@nzta.govt.nz>
**Sent:** Tuesday, 5 June 2018 2:11 p.m.
**To:** Emma Gee <Emma.Gee@tasman.govt.nz>; Jeremy Katterns <Jeremy.Katterns@tasman.govt.nz>
**Cc:** Roger Ashworth <Roger.Ashworth@nzta.govt.nz>; Frank Porter <Frank.Porter@nzta.govt.nz>; Peter McDonald <Peter.McDonald@nzta.govt.nz>; HUNT, Dean <Dean.Hunt@fultonhogan.com>; POWICK, Eamon <Eamon.Powick@fultonhogan.com>
**Subject:** FW: SH60 "slippery when wet" signs Tak -Cwd

Emma,

2

My response to your email enquiry via Jeremy to Dean Hunt refers, with apologies for the delay in replying.

It is acknowledged that additional "Slippery when Wet" signs have been erected on SH60 in Golden Bay. These are a temporary/safety measure taken until such time as the excess binder can be water-cut off the surface, and/or a SCRIM seal can be placed next summer.

It is confirmed that the Watercutting Subcontractor started work on Takaka Hill on Saturday (2nd June) and will be progressing along SH60 through Golden Bay this week. 3,960m2 is programmed to be water-cut (4,470m2 was done last year).

It is noted that SH60 has had a significantly heavier than normal heavy traffic loading in recent times, due to the rock cartage to the barges for Transmission Gully, and the highway is suffering from that loading. Significant heavy pavement maintenance has been done.

Works currently programmed on SH60 Golden Bay are as follows:

- Puamahoe Straight - 2.4km (both sides) of high lip removal and reforming water tables programmed - to be completed by 30th June.
- Puamahoe Straight - 4 short lengths of Area Wide Pavement Treatments (granular overlays) programmed to be done next summer (totalling 473 metres length).
- 2018/19 Reseals on SH60 Golden Bay (Cobb Valley Road to end of SH60) - 2.39km currently programmed, inclusive of 260 metres of SCRIM (skid) seals. There will also be a post-winter inspection to confirm whether other reseal sites need to be advanced due to accelerated deterioration.
- 2019/20 reseals as above - currently programmed for 473 metres of second coat sealing to AWPTs, with the Annual Planning and Post Winter processes to come.

Reseal lengths completed in recent years are as per the following table:

SH60 RS 70 to End - Chipsealing

| Financial Year | Carriageway Length (m) |
|---|---|
| 2005/06 | 10,262 |
| 2006/07 | 12,661 |
| 2007/08 | 4,237 |
| 2008/09 | 4,925 |
| 2009/10 | 2,644 |
| 2010/11 | 5,595 |
| 2011/12 | 0 |
| 2012/13 | 3,943 |
| 2013/14 | 4,476 |
| 2014/15 | 1,272 |
| 2015/16 | 3,933 |
| 2016/17 | 365 |
| 2017/ May18 | 0 |
| Grand Total | 54,313 |
| Average/year | 4,178 metres |

Hopefully the above is sufficient for your needs, but don't hesitate to email me if you require anything further.

Regards

Gareth

Gareth Baxter / Senior Network Manager

System Design and Delivery

4

Wellington – Majestic Centre

DDI 64 4 894 6155 / Mob 021 877 046

Email gareth.baxter@nzta.govt.nz

-----Original Message-----
From: HUNT, Dean [mailto:Dean.Hunt@fultonhogan.com]
Sent: Thursday, 24 May 2018 7:37 a.m.
To: Roger Ashworth; Frank Porter; Peter McDonald; Gareth Baxter
Cc: Anabelle Chaney (Fulton Hogan); Jeremy Katterns
Subject: FW: SH60 "slippery when wet" signs Tak -Cwd

Morning All,

This request has come through Council from the Golden Bay community board, originally from a public enquiry, with questions asked about the slippery when wet signage recently erected.

It is probably best that the Agency answer these questions, not sure who would 'manage' the response

Regards dean

-----Original Message-----

From: Jeremy Katterns [mailto:Jeremy.Katterns@tasman.govt.nz]

Sent: Thursday, 24 May 2018 7:31 AM

To: HUNT, Dean <Dean.Hunt@fultonhogan.com>

Cc: Abbie Langford <abbie.langford22@gmail.com>; Emma Gee <Emma.Gee@tasman.govt.nz>

Subject: RE: SH60 "slippery when wet" signs Tak -Cwd

Hi Dean,

As all the below questions appear to be related to the SH, can you please respond to the Community Board?

Thanks,

Jeremy

Jeremy Katterns

Road Engineer

DDI 03 543 7239 | Mobile 027 223 4001 | Jeremy.Katterns@tasman.govt.nz Private Bag 4, Richmond 7050, NZ http://scanmail.trustwave.com/?c=2838&d=gcOF21CR3NRtHwx648C8QW-VVvY2h4f1xiiMw5JuSA&u=http%3a%2f%2fwww%2etasman%2egovt%2enz



-----Original Message-----

From: Emma Gee

Sent: Monday, 21 May 2018 9:13 a.m.

To: Jeremy Katterns <Jeremy.Katterns@tasman.govt.nz>

Cc: Abbie Langford <abbie.langford22@gmail.com>

Subject: FW: SH60 "slippery when wet" signs Tak -Cwd

Hi Jeremey

Are you able to answer any of Rod's queries, please reply to me and I can pass onto the Board to prepare a response to Rod.

Thanks

Emma

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Emma Gee

Team Leader Customer Services - Takaka

DDI (03) 525 0054 | Emma.Gee@tasman.govt.nz PO Box 74, Takaka 7142, NZ
http://scanmail.trustwave.com/?c=2838&d=gcOF21CR3NRtHwx648C8QW-VVvY2h4f1xiiMw5JuSA&u=http%3a%2f%2fwww%2etasman%2egovt%2enz



-----Original Message-----

From: rl <uttakaos@xtra.co.nz>

Sent: Monday, 21 May 2018 9:06 a.m.

To: Averill Grant <averillgrant@hotmail.com>; Golden Bay Community Board <GoldenBayCommunityBoard@tasman.govt.nz>; r07lgf0rd@gmail.com

Subject: SH60 "slippery when wet" signs Tak -Cwd

Good Morning Several signs have appeared between Onekaka and Takaka and a 50km speed 'temporary' limit was in place - maybe still?- at Milnthorpe.

This is the new - in lieu of, 'sealing the roads', plan - People will chash on these slippery roads. "Slippery when WET" is a very cheap and dangerous option

1/ What sealing has happened on Golden Bay state highways the last two

years- 2016 and 2017 ?

2/ What sealing happened on average, each year , of the last ten -

2005 -2015 ?

3/ What sealing is forecast for SH60 Golden Bay, the next two years

2018 , 2019 ?

Under last govt bugger all sealing and roadside mowing happened .

TDC complaints resulted in TDC increasing again mowing around richmond (and probly mot) as townies like it tidy. - TDC newsletter -a rough quote

Plenty of TDC roads have just been sealed in Takaka area, this Autumn .

SH60 from Upper Takaka to COLLINGWOOD is slippery when wet and a danger to all road users , due to NO annual maintenance.

This shows as long stretches of seal with no road chip on top in both wheel tracks in both lanes.

Rod Langford

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www.nzta.govt.nz

**Emma Gee**

**From:** Abbie Langford <abbie.langford22@gmail.com>
**Sent:** Wednesday, 25 July 2018 11:43 a.m.
**To:** Emma Gee
**Subject:** Fwd: Pohara Stormwater Improvements

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Please add to correspondence

---------- Forwarded message ---------
From: **Laurie Healy** <laurie.healy@xtra.co.nz>
Date: Fri, 20 Jul 2018, 2:01 PM
Subject: Fwd: Pohara Stormwater Improvements
To: Abbie Langford <abbie.langford22@gmail.com>

Hello Abbie,

Attached is the email and letter I have sent to Stuart Bryant regarding Pohara Stormwater improvements planned by council. I think your board should be watching this and perhaps be involved as many properties are effected and as such, it is a community issue. Whilst I am one of the most effected, I want a solution that is in the best interests of the wider community, not just myself. In that respect, I think that every effected persons' interests are closely aligned.

Regards

Laurie Healy.

> **From:** Laurie Healy <laurie.healy@xtra.co.nz>
> **Subject: Pohara Stormwater Improvements**
> **Date:** 20 July 2018 at 1:42:32 PM NZST
> **To:** stuart.bryant@tasman.govt.nz
> **Cc:** Paul <sangsters33@xtra.co.nz>, Sue Brown <suebrown.aorere@gmail.com>, Richard Kirby <richard.kirby@tasman.govt.nz>
>
> Good Afternoon Mr Bryant,
>
> Attached is a letter and attachments regarding the stormwater improvements planned for the Ellis Creek catchment in Pohara.
>
> Please ensure that this letter and attachments are attached to my file.
>
> A copy will also be forwarded to the Golden Bay Community Board.
>
> Yours sincerely
>
> Laurie Healy

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*L F Healy*
*59 A Selwyn Street*
*R D 1*
*TAKAKA 7183*
*Ph: 03 5258896*

20 July 2018

Cr. S Bryant
Chair
Engineering Services Committee
Tasman District Council
Private Bag 4
RICHMOND 7050

Dear Mr Bryant

RE: POHARA STORMWATER IMPROVEMENTS – ID 1057

I am very concerned with the development of this project to upgrade infrastructure to mitigate flood impact for the catchment area of the Ellis, Bartlett and Clifton Creeks and tributaries.

The plan, for which we have been waiting since December 2011, was breathtaking in its inadequacy. Every engineering aspect of this plan will have an adverse effect on my property. No mitigation of those effects is proposed. Dealing with the principal causes of flooding in this catchment were not addressed. The plan appears to have been designed for one purpose – to enable the subdivision off Richmond Road to proceed.

Attached is a copy of my 25 April 2018 email and attachments to Kim Arnold, TDC Project Manager. We subsequently met at my property on 3 May 2018 to discuss the plan. The minutes of that meeting are also attached. None of the questions raised prior to or at that meeting have been addressed – there has been no contact from Council staff.

The agenda to your 21 June 2018 meeting states "Detailed design solutions for individual properties are being agreed with property owners. When property owner approval is obtained, the Resource Consent application will be submitted. Physical works are planned for September." These statements must be untrue as more than 6 weeks prior to this meeting, Council knew that I, and others, were vehemently opposed to the plan as presented.

I have recently learned that Tonkin and Taylor have redesigned part of the plan and have almost completed the Resource Consent application. This implies Council is intending to apply for a non-notified Resource Consent. Is this the case? If so, what is the rationale behind that decision? Many properties are affected by this plan. These property owners are entitled to have access and input to the current proposals and plans.

Yours sincerely

Laurie Healy

Encl. 1. 25 April 2018 email correspondence to Kim Arnold and attachment
2. 3 May 2018 site meeting minutes

25 APRIL EMAIL CORRESPONDENCE 1

From: **Laurie Healy** laurie.healy@xtra.co.nz
Subject: Pohara Stormwater Improvement Plan
Date: 25 April 2018 at 11:27 PM
To: Kim Arnold kim.arnold@tasman.govt.nz
Cc: Paul sangsters33@xtra.co.nz, ewan price ewanprice@outlook.co.nz, richard.kirby@tasman.govt.nz, John Lee zazamanc73@gmail.com
Bcc: Bob Butts bobbutts@xtra.co.nz

Hello Kim,

Attached are my notes following a study of the plan you forwarded earlier this week.

I am happy to meet with you tomorrow, but without answers to the points I have raised and the information missing from your plan, this meeting will possibly be more social than productive.

Regards

Laurie Healy

Pohara Storm...18.odt

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# NOTES ON TDC POHARA STORMWATER IMPROVEMENT PLAN APRIL 2018

**Proposed Plan**

1.1 Where is the water catchment plan, including hydrology reports, that support this latest plan? What water volumes are envisaged?

1.2 What criteria has been used to set this plan? E.g. a 1 in 10-year flood, a 1 in 50 year flood?

1.3 What Resource Consents are required?

**Identified Risks**

2.1 The proposed plan fails to take into account the harvesting of the pine trees and the active slip within the forest at the head of Ellis Creek - an already identified risk.
Harvesting must be due within the foreseeable future. Why is this risk ignored?

2.2 The plan only seems to take into account the increase in stormwater from the currently approved SHA subdivision.

2.2.1 Is no further subdivision or building of any sort envisaged in the catchment area?

2.2.2 That is extremely short sighted as the SHA developers own more sub-divisible land adjacent to the existing approved site and will they not wish to develop it? I am sure you are aware that this is the case.

2.3 Concentrating all floodwater into one creek with limited capacity.

2.4 TDC recognises climate change and the associated extreme weather events. Nowhere has this been addressed.

**Bartlett's Bundwall**

3.1 What is happening with the council built Bartlett diversionary wall (adjacent to Ellis Creek on Arnold Bartlett's property)? At present it contains floodwaters within Ellis Creek and then directs it straight at my property.

3.2 This bund was built after the flood emergency had been lifted.

3.3 This bund has obvious adverse effects, and these must be addressed.

**Flood plain**

4.1 The principal choke point is the Lee/Stoffregen/Healy confluence of Ellis and Clifton Creeks and thence to the Boyle Street culverts. This is not adequately addressed.

4.2 No work is planned to free the choking effect of the Stoffregen ford or the bush cover on council owned land further west again. Cheap and effective. Not doing this minor work has a further detrimental effect on my property.

4.3 Surely the object is to allow the catchment area to drain between tides.

4.3.1 Where are the hydrology reports that show that the two new culverts will cope with an average rain event, let alone an event similar to the 2011 flood?

4.3.2 The existing culverts regularly clog with debris further restricting flow. What assurances can council give me that the new culverts will not be similarly affected?

4.4 It seems that once floodwaters from Ellis Creek hit Lansdowne Street, it is split and diverted along Lansdowne Street, presumably to Clifton Creek.

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Where is it to go from there? The only route for it is through my property. Once again even more water directed at my property.

**Selwyn St bund wall**

5.1 The properties of 59 B & C Selwyn Street are to be "protected" by a combination of wooden walls and earth bunds.

- In an event like the 2011 flood there is the potential to form a large swimming pool as water will be unable to escape.
- On the other side of the wall, yet more water will be diverted to me.

**Totally Roasted bund wall**

6.1 The bund to protect Totally Roasted Coffee House and other properties along Abel Tasman Drive will divert even more water into Bartlett Creek, thence to Ellis Creek and onto my property.

6.2 The work I have done to date must be beneficial to the Pohara community in mitigating flooding in an extreme weather event, yet no mention is made of it, but I am sure you have made use of it in your planning

**Conclusion**

TDC is asking me to accept **ALL** Ellis and Bartlett Creek floodwaters, including increased flows from the private subdivision, and any future building or development in the catchment area, **WITHOUT** any mitigation whatsoever. In other words, my property is to be at risk from the entire catchment areas for both Ellis and Clifton Creeks. **EVERY** item of work proposed will have cumulative adverse effects on me.

At the same time, whilst denying any mitigation, Council is preventing me from protecting my property from the effects of Council activity by use of an Abatement Notice.

I have a natural right to protect my property from the results of any activity instigated by Council that adversely affects my property. Rest assured, I will vigorously pursue my rights.

The Bartlett diversionary wall, built by council in 2012, has hugely affected my property by diverting floodwater directly at me, again without any attempt at mitigation. I have the option to lodge a complaint with your Compliance Division to have this un-consented diversionary wall removed. Section 330 of the RMA had expired when this wall was built.

You seem to expect me to stand idly by and take no action to protect my property. In the December 2011 flood we avoided inundation of the house by approximately 200mm, a fact of which you are well aware. So what happens at the next similar event? Will you accept responsibility for all damage resulting from your activities?

I will take all action possible to ensure that this plan and the proposed subdivision do not proceed as the plan focuses on only one issue – the interests of the private SHA subdivision with no regard to an existing home.

3 MAY 2018 SITE MEETING MINUTES 4

**L F Healy**
**59a Selwyn Street**
**Pohara**
**Takaka 7183**
**Tel.: 03 5258896**
**email: laurie.healy@xtra.co.nz**

6 May 2018

Mr K Arnold
Project Manager
Tasman District Council
Private Bag 4
RICHMOND 7050

Dear Kim

**POHARA STORMWATER IMPROVEMENT PLAN**

Thanks for calling in with Robert Thursday last to discuss the proposed plan.

In attendance were:

Kim Arnold (KA) -TDC
Robert Workman (RW) - TDC
Jocelyn kemp (JK) - Observer
Laurie Healy (LH) - Cloud Dance Trust

Meeting commenced : 2.45 pm

Matters discussed:

The Trust's position:

1. The Trust is totally opposed to ALL aspects of the plan as presented as EVERY item of work proposed has a detrimental affect on it's property.
2. It will vigorously pursue it's right to defend it's property, something council is currently actively preventing it from doing.
3. The offer to allow Council to divert Ellis Creek down the Trust's south western boundary is withdrawn.
4. The Trust intends to relocate the entrance to it's property to Lansdowne and Shelley Streets.
5. The plan is entirely for the benefit of one party – the private developer of the proposed subdivision off Richmond Road. Any plan must consider ALL affected parties.

Information requested in LH's email to KA (~~3 May 2018~~ 25 APRIL 2018):

None was forthcoming other that RW stating that the plan was based on a 1 in 100 year event.

The Bartlett Bund:

1. LH - it is an illegal construction, formed after the 2011 flood emergency had been lifted. It has a detrimental affect on this property by concentrating water into Ellis Creek at Lansdowne Street and thence to the Trust's property and to the back of those Selwyn Street properties backing onto the Lee's Drive.
   RW disagreed that it was illegal.
2. LH stated that another effect was that the land to the south of the bund was no longer a flood plain due to the presence of the bund. KA and RW neither disagreed nor commented.

The active slip at the head of Ellis Creek:

KA/RW - this has not been taken into account in preparing the plan.

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The harvesting of the pine forest at the head of Ellis Creek:

KA/RW - this has not been considered

Climate Change:

Also not considered in the plan.

Future development of the proposed subdivision:

Also not considered in the plan.

Ellis Creek following a ridge to where it crosses Abel Tasman Drive:

KA and RW seemed unaware that this was the case. RW - the proposed Bartlett Creek bund would be overwhelmed should the creek break out from it's current course (as it did in the 2011 flood) and that the properties behind the bund would be inundated with no way of removing the flood waters quickly.

How to proceed:

LH – several ways forward:

1. Council buy the Trust's property and do what it likes. RW – Council has taken that sort of action from time to time. Or
2. Council use it's statutory powers to force the plan onto the Trust. If this approach is to be followed, LH requested details including that of the compensation package envisaged. Or
3. The hard way where both parties fight it out, including, but not limited to, legal action, or
4. The easy way where both parties act in good faith, with transparency and honesty, to negotiate a resolution all can live with.

The choice is Council's.

Meeting closed: 4.30pm (approx.)

Unless you have other views, I am treating the above notes as the minutes of our meeting.

Further thoughts:

25 April 2018

The plan as presented is under-prepared and lacks technical detail. The Trust cannot make informed decisions without information. Detail was requested in our ~~3 May 2018~~ emailed notes you, but nothing other than an admission that the plan is based on a 1 in 100 year event, has been forthcoming. To evaluate any plan, the Trust must have the technical detail, including, but not limited to :

1. The catchment plan for all streams, creeks, drains etc. contributing to the flow through the Stoffregan/ Lee choke point (confluence of Ellis and Clifton Creeks);
2. Volumes in cumecs at the various choke points;
3. Design detail of all improvements planned, including the improvements to the confluence of Ellis and Clifton Creeks; and
4. Flood level anticipated at the Trust's property,

A solution could be to re-route Ellis Creek across the Barlett and Tullet properties to meet Clifton Creek at the southern corner of the Trust's property, and fix the downstream route to take the additional water. In all probability, that would remove the necessity for both the Barlett Creek and Lee bunds.

I look forward to negotiating a way forward.

Yours sincerely

Laurie Healy

**CORRESPONDENCE FEBRUARY 2018**

**Information Only - No Decision Required**

**Report To:** Golden Bay Community Board

**Meeting Date:** 14 August 2018

**Report Author:** Emma Gee, Customer Services Officer

**Report Number:**

## 1 Summary

1.1 The incoming and outgoing correspondence for July 2018 is attached to this report.

## 2 Attachments

1. Karen Pessione Grandstand
2. Remuneration Authority
3. Karen Brookes Waimea Community Dam
4. Tony Lawton Golden Bay Local Board
5. Anna Garety Coastal Protection Structures on Council Reserves
6. Roland Toder Waimea Community Dam
7. Louise Coleman Waimea Community Dam
8. Nigel Birse - Collingwood Walkway
9. G & D Rogers Pohara Drainage
10. Suzy Hall Ligar Bay Development
11. Lynne Hall - Village Green
12. GBCB Submission Representation Review 2018

Attachment 21

**Emma Gee**

**From:** Abbie Langford <abbie.langford22@gmail.com>
**Sent:** Friday, 27 July 2018 10:57 a.m.
**To:** Emma Gee
**Subject:** Fwd: TDC Submission Response

---------- Forwarded message ---------
From: <reportserver@tasman.govt.nz>
Date: Fri, 27 Jul 2018, 10:48 AM
Subject: TDC Submission Response
To: <abbie.langford22@gmail.com>

tasman district council

27 July 2018 A18457

Mrs Abbie Langford
53 McCallum Road R.D 1
Takaka 7183

Dear Abbie Langford,

Long Term Plan 2018-2028 and Concurrent Consultations

Thank you for your submission on the Long Term Plan 2018-2028 and Concurrent Consultations. The Mayor and Councillors appreciated the input of all the submitters and those that took the time to speak to their submissions. A number of changes were made as a result of your submissions and the final outcome is now available on Council's website (http://www.tasman.govt.nz/ltp).

With regard to our five key issues, Council has decided to retain the 3% cap in annual rates income increases (excluding an allowance for population growth) and a debt cap of $200 million. Within these self-imposed financial constraints, our Long Term Plan will deliver a range of projects to improve facilities and services for our communities.

Population growth continues to put pressure on our existing transport, stormwater, wastewater and water networks, so over the next 10 years we have budgeted to spend just over $200 million on new and upgraded infrastructure to cater for growth and to maintain or enhance existing services. Our water infrastructure is also a big focus area, and we plan to spend $45.5 million on water security and capacity projects, and $27 million on treatment upgrades across the District over the 10 years. After listening to submitters, Council confirmed the introduction of a fixed water service charge for Motueka properties connected to our reticulated water supply network. This new charge took effect from 1 July 2018.

The Waimea Community Dam (Dam) project has progressed slower than anticipated, and a number of the concurrent work streams are still ongoing. The proposed Dam is still the preferred option and the least expensive to address the threats of critical water shortages, particularly given the significant contribution from irrigators and the Government. However, in early July Council received the Early Contractor Involvement agreed final project cost, which has revised the construction cost to approximately $68.1

million, a difference of around $18 million. There are also other workstreams still to be finalised, and we have reason to believe that these costs are likely to be in the order of $8 million over our original estimate. Therefore, the total cost is more likely to be $26 million more than estimated in 2015. Unless a solution can be found to close the funding gap, we are unlikely to proceed with the proposed Dam.

Council also adopted its Development and Financial Contributions Policy, with some minor amendments. This Policy is now based on a catchment based approach for water, wastewater and stormwater, and provides lower charges for smaller homes. The new charging regime commenced on 1 July 2018.



Commercial Activity

The airports contribution to servicing the community in storm events is acknowledged. The sealing of the cross runway will be (as are other proposals) subject to a business case.

Transportation Projects

Thank for your support of increasing gravel road maintenance. In your submission you requested that Council consider sealing McGowan Street in Puponga. Generally, Council does not undertake sealing of gravel roads due to the costs associated with the seal and on going maintenance. For this reason, sealing of McGowan Street has not been included in the Long Term Plan.

Thank you again for taking the time to submit, our Council appreciated your time and input into this process.

Kind regards / Ngā mihi

Sharon Flood | Strategic Development
Strategic Policy Manager

**Tasman District Council**
**Email** info@tasman.govt.nz
**Website** www.tasman.govt.nz
**24 hour assistance**

**Richmond**
189 Queen Street
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Richmond 7050
New Zealand
**Phone** 03 543 8400
**Fax** 03 543 9524

**Murchison**
92 Fairfax Street
Murchison 7007
New Zealand
**Phone** 03 523 1013
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**Motueka**
7 Hickmott Place
PO Box 123
Motueka 7143
New Zealand
**Phone** 03 528 2022
**Fax** 03 528 9751

**Takaka**
14 Junction Street
PO Box 74
Takaka 7142
New Zealand
**Phone** 03 525 0020
**Fax** 03 525 9972

## LOLLOKIKI

# TAX INVOICE

027 3838 001
lollokiki705@gmail.com

705 Abel Tasman Drive
RD1
Takaka 7183

GST: 080-663-595

Golden Bay Community Board
Takaka
Tasman District Council

Invoice for extra painted needed

Date: 30:07:18

Project Title: Town Banners

| Description | Quantity | Unit Price | Cost |
|---|---|---|---|
| Extra 4lts paint needed to paint frames not in original budget | 1 | $160.11 with DIY discount card | $ 139 |
| Extra time spent painting due to frames | 4hrs | donation | Free of charge |
| | | | |
| | | | |
| | | | |
| | | | |
| | | Subtotal | $ 139 |
| | GST | 15.00% | $ 21 |
| | | Total | $ 160 |

Bank details: 38-9005-0500531-00

**Emma Gee**

**From:** Jocelyn Tracey <jocelyn.tracey@outlook.com>
**Sent:** Wednesday, 1 August 2018 3:23 p.m.
**To:** Golden Bay Community Board
**Subject:** Te Whare Mahana Board

Dear Community Board members

The Te Whare Mahana Trust Board would value continuing input from you, our elected community representatives. Your participation during our recent strategic planning day was invaluable.

We would be very pleased if one of you was able to attend out regular board meetings (currently held on the third Wednesday of the month, 4-6 pm), with speaking, but not voting rights.

I look forward to hearing from you.

Jocelyn Tracey
Chairperson
Te Whare Mahana Trust Board
Ph 03 525 9125