Meeting of the Environment and Services Committee

Date: Wednesday 5 December 2012

Time: 9.00 am

Venue: Council Chamber
Hawke's Bay Regional Council
159 Dalton Street
NAPIER

Agenda

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 05 December 2012

SUBJECT: ACTION ITEMS FROM MEETINGS

Introduction

1. **Attachment 1** lists items raised at previous meetings that require actions or follow-ups. All action items indicate who is responsible for each action, when it is expected to be completed and a brief status comment. Once the items have been completed and reported to Council they will be removed from the list.

Decision Making Process

2. Council is required to make a decision in accordance with Part 6 Sub-Part 1, of the Local Government Act 2002 (the Act). Staff have assessed the requirements contained within this section of the Act in relation to this item and have concluded that as this report is for information only and no decision is required in terms of the Local Government Act's provisions, the decision making procedures set out in the Act do not apply.

Recommendation

1. That the Environment and Services Committee receives the report "Action Items from Previous Meetings".

Mike Adye
GROUP MANAGER ASSET MANAGEMENT

Iain Maxwell
GROUP MANAGER RESOURCE MANAGEMENT

Attachment/s

1 Action Item Schedule

Actions from Environmental & Services Committee Meetings

The following is a list of items raised at Environmental & Services Committee Meetings that require actions or follow-ups. All action items indicate who is responsible for each action, when it is expected to be completed and a brief status comment. Once the items have been completed and reported back to the Committee they will be removed from the list

Meeting Date	Agenda Item	Action	Person Responsible	Due Date	Status/Comment
15 Aug	7	Biodiversity Strategy	Iain M	Oct	Terms of Ref yet to be developed by the Biodiversity Strategy Steering Group.
17 Oct	5	Blue Flag, European Standard	Iain M	Dec 12	The Foundation for Environmental Education 'Blue Flag' programme, or an equivalent, is being reviewed by staff to consider its application in a New Zealand context
17 Oct	8	Makara Dam – total amount paid into scheme by ratepayers since inception	Mike A	Dec 12	Item on this agenda.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 05 December 2012

SUBJECT: MAKARA SCHEME REVIEW

Reason for Report

1. A review of the Makara Scheme has been undertaken following the failure in the Makara No1 dam. After the identification of the failure, work has been completed to assess options for the repair of the failure and prepare an estimated cost for the preferred repair option.
2. A report considered by the Environment and Services Committee in October 2012 advised that the cost of repair to the dam has been estimated at $1,400,000. This cost is not affordable to the Scheme without significant increase in targeted rates. Staff recommendations at that time were that further investigations on alternative options and their cost vs benefit for flood mitigation in the Makara Valley should be undertaken and reported back to the Committee in December.
3. This work has now been completed and further options and how those may be funded are presented in this and the attached report.

Background

4. The Upper Makara Catchment Control Scheme is located approximately 30 km due south of Hastings, and 20 km due east of Waipawa. The catchment (approximately 7645 ha) spans the steep hill country above Elsthorpe, as well as the flat area around the village of Elsthorpe. The main streams in the catchment are the Makara Stream, the Wharemate Stream, and the Silver Range Stream. The Wharemate and the Silver Range Streams drain into the Makara Stream, which flows through the Elsthorpe Valley to the Tukituki River.
5. The need for the Catchment Control Scheme was initiated in August 1971 following a period of severe storms which caused significant erosion on properties in the catchment and flooding through Elsthorpe. A further flood in October that year and widespread flooding in 1974 resulted in further damage and problems for the local community.
6. The Scheme was designed to improve stability and productivity of 800 hectares of flats and 2225 hectares of hill country.
7. The Makara and Silver Range Streams with their catchments in the very steep severely eroding country were subject to flash floods from combinations of high intensity rain storms and very low capacity alluvial channels.
8. The Wharamate Stream has a large catchment with moderately steep land and also had a low capacity drainage channel.
9. The Scheme design incorporated a combination of detention dams, some stopbanking, and significant channel improvements along with soil conservation works on the steep hill country using retirement planting.

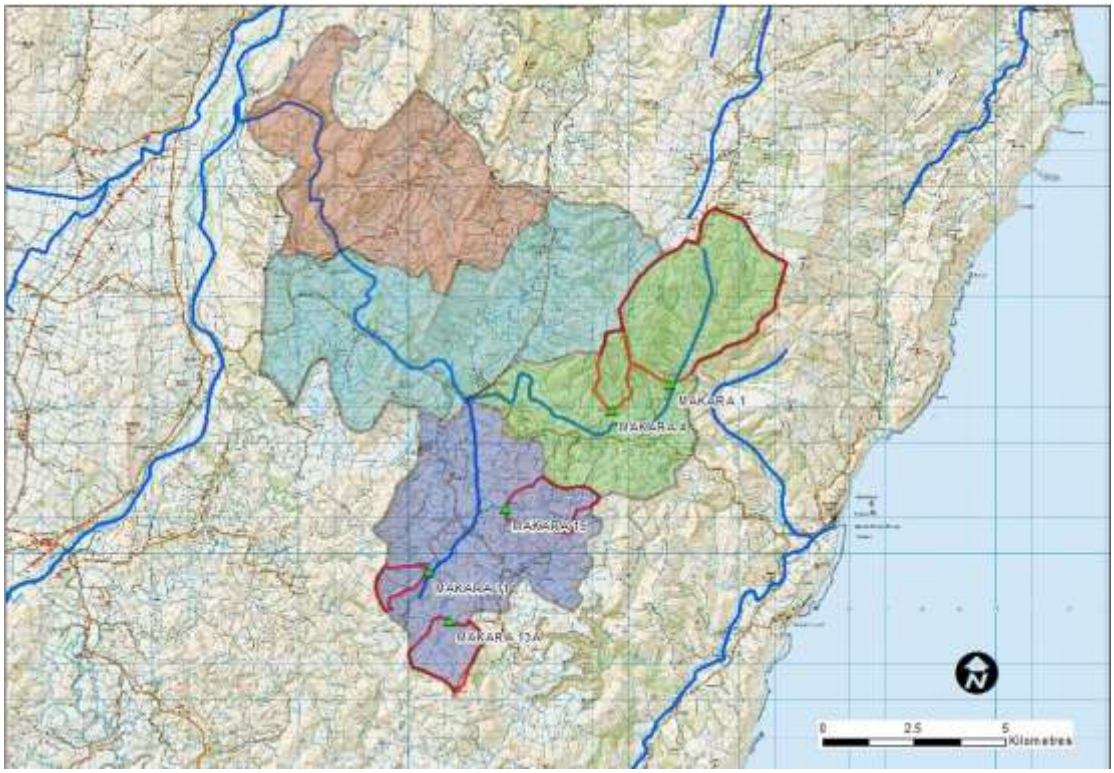


Figure 1: Location of dam and outline of study area

10. Discussions between landowners and the former Hawke's Bay Catchment Board commenced in 1971 and the final Scheme was agreed in 1975.

11. During the late 1970's and early 1980's a series of 5 detention dams were constructed on the Makara Stream and Wharemate Stream to reduce the flood peaks and provide a more controlled flow in the streams. The reduced flood peaks, improved channels and reduced siltation enabled further development of the catchment.

12. During the 1980's significant channel excavations were carried out on the Makara Stream, the Wharemate Stream, and the Silver Range Stream, in order to improve the alignment and capacity of the various channels. As well, soil conservation planting has been carried out throughout the catchment to control hill country erosion.

13. The Schemes capital works programme was completed in January 1984 at a cost of $1,239,763 with a government grant of $896,250. (Source – History of the Hawke's Bay Catchment Board and Regional Water Board). The local share was met from capital works rates levied on the community from 1977/78 until 1983/84.

Scheme Objectives

14. The objectives of the Upper Makara Catchment Control Scheme when it was established were;

    14.1. to provide 5 year flood protection to approximately 720 ha of farmland in the Elsthorpe Valley by way of flood detention dams;

    14.2. to reduce erosion and improve production potential over much of the 2400 ha of moderately to severely eroded catchment by way of catchment planting;

    14.3. to reduce siltation of the Makara Stream;

    14.4. to improve drainage outlets along the Wharemate Stream; and

    14.5. to maintain channel capacity in the Silver Range Stream.

15. The current maintenance programme for the Scheme is designed to meet these objectives to a level which is acceptable to the scheme ratepayers, taking into account the cost of any works to be done.

16. The Scheme levels of service objectives are:

Streams and Channels

17. The design flow capacity (5 year return period) shall be contained within the stream or drainage channel. The channel shall be maintained with a short dense sward of vegetation to minimise resistance to flood flows and minimise channel sedimentation. Where specific design information is available the channels will be maintained in accordance with this design criteria. Streams and drains shall convey their design flow, for extended periods, without overflow on to adjacent land, and with an acceptable low risk of damage to the channel.

Drainage Structures

18. The timber flume structures shall allow the design flood flow to pass freely through them without causing flooding of upstream lands through blockage or undue heading-up, and with an acceptable low risk of damage to the structure.

Detention Dams

19. Dam capacity required for the design storm event must be calculated from available hydrological records, and the actual capacity is derived from this plus other factors.

20. Each dam has a spillway to allow safe overflow when a storm event exceeds the design capacity of the dam. Spillways are designed for a storm event in excess of the design storm event.

21. It is recognised that in any event where a detention dam storage capacity is exceeded flooding will occur downstream of the dam.

22. All detention dams shall control water in a design storm event by releasing the maximum flow through the outlet culvert and retaining the remainder as ponded water behind the dam wall up to spillway level.

    The spillway shall convey any water in excess of the design capacity via a spillway into the outlet channel without undue scouring of the spillway, or erosion of the banks of the downstream channel.

Scheme rating and funding

23. Targeted rates levied since the completion of the Scheme have funded ongoing maintenance of the Scheme. Key areas for maintenance have included:

    23.1. maintenance of dam discharge pipe inlet structures free of debris, and repairs to localised scouring where necessary, including monthly and post flood checks

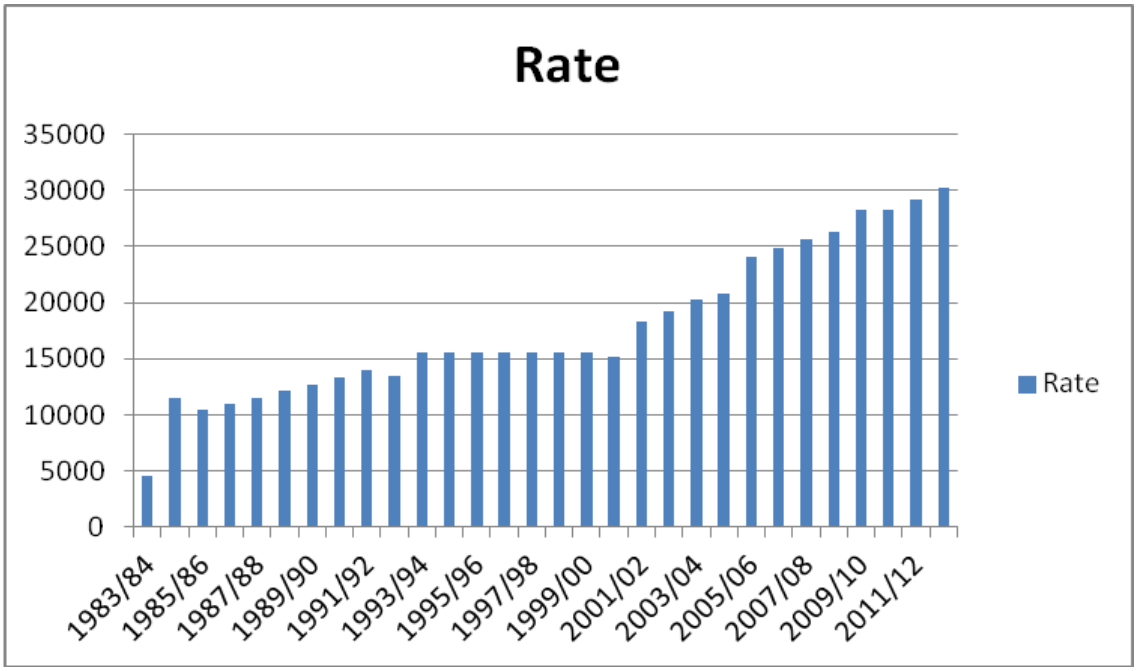
    23.2. maintenance of the Scheme waterways, including regrowth spraying

    23.3. annual surveys of the dam structures as required by building consent conditions, with regular survey to monitor possible changes

    23.4. removal of windfall trees

    23.5. periodic channel cleaning.

24. Since the commencement of the maintenance of the Scheme in 1983/84 a total of $534,057 of targeted rates has been levied from the community. The total annual rate take is set out in the graph below. Targeted rates of $30,261 have been set for the 2012/13 financial year.



25. HBRC manages the Scheme finances through 3 separate accounts. As at 30 June 2012, the account balances for each of these accounts was as set out below.

Account	Balance
Scheme operating account	-$39,050
Scheme disaster reserve	$40,538
Scheme depreciation reserve	$173,535

26. The Scheme operating account is in deficit as a result of initial costs incurred from initial response to discovery of the failure of the dam.

27. Scheme assets include:

    27.1. 5 flood detention dams

    27.2. 17km of channel

    27.3. 2.5km stopbanks

    27.4. Soil conservation plantings

28. To comply with the required accounting practice flowing the enactment of the Local Government Act 2002, Council assessed the value of all infrastructure assets and determined the annual depreciation associated with those assets. A depreciation reserve was set up for each scheme to manage that depreciation income and asset replacement expenditure.

29. All assets are valued on the basis of their replacement value (ie the replacement of those assets in their current form and to their current design specifications). The value of Makara Scheme assets is $2,810,512 (the value of the No 1 Dam is $854,002). An annual depreciation charge of $17,967 is levied on the Scheme to fund the depreciation of these assets. The Scheme depreciation reserve has been established to manage this income. The replacement of assets that reach the end of their useful life is funded from the depreciation reserve up to the limit of the reserve fund.

30. The Local Authority Protection Programme (LAPP) through which HBRC insures its infrastructure assets has recently agreed to assess insurance on the basis of optimised replacement value provided the assets and their values are included on Council's insurance schedule. Optimised replacement cost is the cost of replacement of the asset

to the modern equivalent of that asset, taking into account whether or not the asset is still the most cost effective way of providing the level of service provided by the asset, and whether or not justification remains for the provision of that level of service. To revalue all infrastructure assets on the basis of their optimised replacement value will require a review of all infrastructure assets to be covered by LAPP. This may result in significant changes in the level of depreciation levied on schemes.

Dam Siltation

31. A variety of files and notes exist showing some of the initial analysis which went into the design of the Scheme. A report setting out design options and their cost vs benefit and recommending an option providing a 5 year level of protection is believed to be the basis upon which the Scheme was promoted.

32. Staff understand that the scheme was constructed in accordance with this option. It is likely that some allowance was made in the dam designs, and particularly for the design of the No 1 dam, for siltation. The original volume in the reservoir was estimated (in 1980) through traditional ground survey methods to be 835,000m^3. Siltation has been occurring in the ponding area and has been monitored through cross section surveys. Using the most recent siltation survey, it is estimated that 160,500m^3 of silt has built up in the ponding area since 1980.

33. Using the most recent LiDAR survey data, the remaining ponding volume has been calculated to be 490,000m^3 and not the 674,500m^3 determined using the original survey data. The original calculation of volume, or the volume of siltation are two possible reasons for this difference. The modelling work undertaken to assess Scheme options over the past several months is based on the remaining volume calculated using the LiDAR data.

34. An accumulation of 160,000 m^3 of silt equates to 19% of 835,000 m^3; or 25% of 650,500 m^3 (The possible original storage volume). This equates to siltation of approximately 5,000m^3 per year.

35. Siltation of approximately 4,000 m^3 has occurred in Dam 4 since its construction (No. 4 dam has a catchment of similar geology to that of the No1 dam.) The other 3 dams which are on the Wharemate Stream and its tributaries, have relatively little siltation.

36. Desilting dams is estimated to cost approximately \$6.00/m^3 if a suitable dump site is able to be identified with only a short haul distance ideally downstream of a dam. This equates to a cost of approximately \$1,000,000.

37. If a programme of work was put in place to remove new siltation from the Scheme dams on a regular basis, it would cost approximately \$30,000 annually, and therefore require rates to double.

April 2011 event

38. The rainfall event that occurred in 2011 resulted in the dam spilling water because it exceeded its storage capacity.

39. There is no site specific information from which staff are able to calculate the return period for that event. However using national data the return period is likely to have been well in excess of an event that would be expected to occur on average once every 100 years. This is demonstrated in the table below which shows return periods against rainfall depth.

	Rainfall Depth (mm)					
	Return Period (years)					
Duration	2	5	10	20	50	100
10m	7.3	10.0	12.4	15.1	19.5	23.7
60m	24.5	33.5	41.3	50.4	65.2	79.1
2h	37.3	50.4	61.4	74.3	95.1	114.4
6h	72.7	96.0	115	138	173	205
12h	111	144	172	203	253	297
24h	169	217	256	300	368	430
48h	216	278	328	385	473	552
72h	250	322	380	445	547	638

40. The nearest rainfall gauge to the site is the HBRC Waipoapoa site which recorded:

Duration	Rainfall depth	
	24 hours	431mm
	36 hours	543mm
	72 hours	625 mm

41. Anecdotal evidence is that over 700mm of rain fell in 36 hours in the Puhokio and Mangakuri catchments.

42. Using these figures the event has an estimated return period of at least 100 years and could have been considerably larger. The designed 5 year return period for the Scheme was therefore exceeded by a substantial amount, and the extent of flooding in the Makara Valley would have reflected the extreme event.

Deterioration of the dam discharge pipe

43. Prior to the April 2011 flood event, the Council's annual site inspections of Makara 1 Dam had identified that the Armco culvert was misaligned but no significant changes had occurred to suggest anything untoward was occurring or to suspect imminent failure. However the presence of corrosion in the base of the discharge pipe had been noted as requiring ongoing monitoring.

44. In 2010, engineering staff investigated some options for replacement or rehabilitation of the culvert. More detailed assessments of options were undertaken after the April 2011 event when sinkholes were found near the pipe outlet. These assessments included engaging consultants in Oct/Nov 2011 to investigate the two holes and the culvert during a site visit. The repair in accordance with the consultants design was implemented, but no other immediate concerns were raised.

45. The need to undertake work on the pipe was raised with the Makara Liaison Committee including indicative cost estimates early 2012, however at that stage it was believed that there was no urgency for that repair to be undertaken. Indicative estimates prepared were:

    45.1. the removal of existing dam and replacement of culvert and reinstatement of dam to existing standards/heights/specifications was approx $500,000 for the earthworks and $500,000 for the culverts, headwalls etc.; and

    45.2. relining of the outlet pipe which was estimated at between $400,000-$600,000 with some unknowns with regard to structural integrity should the main Armco fully fail.

46. The costs excluded the cost of consent, detailed design, dewatering, contingency, and costs associated with higher building code specifications/requirements.

Review of alternative options

47. A more intensive process of reviewing options has been underway since the discovery of a sinkhole near the crest of the dam.

48. Mr John Philpott of John Philpott and Associates consulting engineers was commissioned to undertake a further review of options. Mr Philpott has considerable experience in reviewing Schemes established and administered under the Soil Conservation and Rivers Control Act 1941 as an employee of Horizons Regional Council, and since establishing himself as a consultant in 2000. Mr Philpott currently provides river engineering management services to Taranaki Regional Council and has undertaken reviews of nearly all of the schemes managed by Horizons Regional Council. This background experience and knowledge has enabled him to complete the task of reviewing alternatives for the Makara Scheme within the relatively short time available.

49. In undertaking the review Mr Philpott has required and received a significant amount of support from the HBRC engineering team who have developed and run flood models required to assess a range of possible options. Mr Philpott's report is attached as **Attachment 1.**

Summary of assessment of options

50. A significant amount of work has been undertaken to assess options for the reinstatement of the level of flood protection that was provided by the dam, and the options are set out in the table below.

51. The following work has been necessary as a direct result of the failure of the No 1 dam.

    51.1. the initial assessment undertaken immediately following the discovery of the sinkhole in the dam

    51.2. the construction of the temporary spillway

    51.3. work undertaken by Damwatch to refine the design for the reinstatement of the dam.

52. All other work is necessary to undertake a full review of the Scheme.

53. Staff propose that all costs necessary to undertake a review of the Scheme be met by the Scheme, with the remainder, other than LiDAR survey, being met from the HBRC regional disaster reserve. LiDAR survey has been undertaken over much of the region and funded through general funding sources. Costs have been allocated on this basis in the following table.

54. Staff suggest that the cost of LiDAR survey is met from the Central and Southern Scheme budget which has had the benefit of previous LiDAR surveys covering the majority of plains and coastal areas within the region.

Comparison of options for Makara					
		Suggested funding sources			
Costs to Date		Makara Scheme	Regional disaster reserve	Other	Funding
Initial assessment by Damwatch	24,866		24,866		
LiDAR surveying	20,320			20,320	
Temporary spillway construction	27,080		27,080		
Additional soil testing	6,385	6,385			
Ground survey	7,388	7,388			
Damwatch options assessment and preferred option development	116,246	66,246	50,000		
HBRC engineering modelling etc	40,000	40,000			
Review of alternative options	15,000	15,000			
miscellaneous	199	199			
	257,484	**135,218**	**101,946**	**20,320**	
Option 1 reinstate dam					
Dam design, consenting and reconstruction	1,210,000	852,000	358,000		Scheme dep fund - $190,000
Minor stopbank improvements	65,000	65,000			Borrowing - $720,000
costs to date		135,218	101,946	20,320	
Option 1 cost	**1,532,484**	**1,052,218**	**459,946**	**20,320**	Requires rate increase to approx $130,000/year
Option 2 Decommission dam and provide 5 year flood protection with no freeboard					
Decommission dam	358,000		358,000		
Stopbank improvements	137,000	137,000			Scheme dep fund - $190,000
Bridge improvements	200,000	200,000			Borrowing - $145,000
costs to date		135,218	101,946	20,320	
Option 2 cost	**952,484**	**472,218**	**459,946**	**20,320**	Requires rate increase to approx $60,000/year
Option 3 Decomission dam and provide 5 year flood protection with 300mm freeboard					
Decommission dam	358,000		358,000		
Stopbank improvements	243,000	243,000			Scheme dep fund - $190,000
Bridge improvements	200,000	200,000			Borrowing - $250,000
costs to date		135,218	101,946	20,320	
Option 3 cost	**1,058,484**	**578,218**	**459,946**	**20,320**	Requires rate increase to approx $75,000/year
Option 4 Decomission dam and provide 10 year flood protection with 300mm freeboard					
Decommission dam	358,000		358,000		
Stopbank improvements	430,000	430,000			Scheme dep fund - $190,000
Bridge improvements	200,000	200,000			Borrowing - $440,000
costs to date		135,218	101,946	20,320	
Option 4 cost	**1,245,484**	**765,218**	**459,946**	**20,320**	Requires rate increase to approx $95,000/year

55. Costs set out in the above table are indicative. Provision has been included for some contingency in the estimate for each option. A significant increase in targeted rates is required whatever option is chosen. As discussed in the Philpott report, it is recommended that the Scheme classification under which the Scheme rates are allocated should be reviewed. This will be explored with the Scheme ratepayers.

Option 1 - Reinstatement of the dam

The dam:

56. Reduces the level of flood flows in the Makara Stream for smaller more frequent events (estimated to be those events that occur on average once every 5 years);

57. Effectiveness reduces for larger events when the dam storage capacity is exceeded and the spillway operates. In an event expected to occur on average once every 20 years, the dam has a negligible impact on the peak flows in the Makara Stream. Therefore in the April 2011 storm event, the dam would have had no impact on the flood levels that were experienced in the Makara Stream and in Elsthorpe.

58. Is losing its effectiveness as a result of ongoing build-up of silt in its ponding area.

59. Has high annual costs because of depreciation and compliance costs.

60. If the effectiveness of the dam is to be maintained then a programme of desilting would need to be initiated. As stated earlier in this report the annual cost of desilting just to maintain the current level of service provided by the dam will be in the order of $30,000 annually.

61. Option 1 is not recommended because of its high capital and operational cost.

Option 2 – Decommission the dam and improve stopbanks to provide 5 year flood protection (with no freeboard allowance).

62. This option will provide substantially the same level of service as that provided by the dam.

63. As set out in the Philpott report, this will however result in approximately 0.6 ha of additional land being required for the stopbank footprint. Because of the nature of the channel the land affected by the stopbank upgrade is located on farms that derive the most benefit from the Scheme, and therefore no provision has been made in the cost estimate for land purchase.

64. A provision is included in the estimates for all stopbank improvement options to raise the level of 4 farm bridges. The estimate included is based on experience on raising of farm bridges on other Schemes. However in some instances improvements to farm bridges may be required as part of the raising work, in which case there would be negotiation with the individual farmer to agree on a cost sharing arrangement.

Option 3 – Decommission dam and improve stopbanks to provide 5 year flood protection (With freeboard of 300mm)

65. This option will provide the same level of service to that provided by the dam plus an additional margin to cover modelling and flow uncertainties.

66. As set out in the Philpott report, this will however result in approximately 1.0 ha of additional land being required for the stopbank footprint.

Option 4 – Decommission dam and improve stopbanks to provide 10 year flood protection (With freeboard of 300mm)

67. This option will provide an increased level of service to that provided by the dam plus an additional margin to cover modeling and flow uncertainties.

68. As set out in the Philpott report, this will however result in approximately 1.85 ha of additional land being required for the stopbank footprint.

Use of the Regional Disaster Reserve Fund

69. The Regional Disaster Reserve was established by HBRC in 1996 to ensure funds were available to deal with damage to infrastructure assets should there be a major disaster affecting the region. The fund was established to:

    69.1. Meet any extraordinary costs of managing the response and recovery if a disaster event occurs

    69.2. Meet, along with Scheme disaster reserves, the $3m excess for any event for damage covered by Council's commercial infrastructure policy.

    69.3. On 28 February 2007 Council resolved that this reserve should maintain a balance between $2.75m and $3.75m. This was the last time the disaster damage insurance for HBRC infrastructure assets was reviewed. As at 30 June 2012 the reserve had a market value for its investments of $3.475m.

70. The funding of $460,000 would therefore reduce the value of investments held by the Reserve to approximately $3m.

Ratepayer consultation

71. Staff have held a series of meetings with Scheme ratepayers since the failure of the No1 dam was discovered. The most recent meeting being on 28 November 2012 at which Mr Philpott presented his report and a draft of this report was presented and circulated.

72. Key issues raised at that meeting were:

    72.1. Impact of the proposed stopbank options on the level and extent of flooding downstream of Elsthorpe.

    72.2. Level of financial contribution that HBRC would make to assist in providing a level of service at least equivalent to that provided by the dam.

    72.3. Potential for increased siltation downstream if silt no longer deposited in the dam ponding area.

    72.4. Timing of any work. The community would like to have a reduced level of risk before the 2013 winter.

    72.5. Fairness of the rating classification given the potential for a significant increase in rates necessary to fund works that would only benefit landowners in the Makara Valley.

73. Staff believe that further communication with Scheme ratepayers is necessary before a final decision on a preferred option for the future of the Scheme is decided.

74. Staff therefore propose that a document setting out a range of options and seeking specific feedback should be circulated to all ratepayers as soon as possible. This document would be set out as required by the Local Government Act 2002 as part of a special consultative process under that Act. A formal hearing to consider all submissions would be held early in the 2013 year.

75. If this was agreed to, a possible timeframe for the process would be:

    75.1. Statement of Proposal prepared and publically notified by:

        75.1.1. End January if restricted to options for reinstating level of service provided by the dam.

        75.1.2. Mid February if a review of the current classification is to be included. Staff believe that it is appropriate that this review be undertaken.

    75.2. A period of at least 1 month is required following public notification within which submissions on the Proposal may be made. Staff would undertake consultation with the community during this period.

    75.3. Following the closure of the submission period staff will require at least 2 weeks to collate and report on submissions received, and distribute them to Hearings Panel members.

76. Given that this process will not be completed until late March 2013, any significant construction work will not be able to be completed prior to the 2013 winter. Staff will consider, and set out in the Statement of Proposal, what work could be done prior to the 2013 winter to minimise the risk of flooding to properties until construction of the preferred option has been completed.

Decision Making Process

1. Council is required to make a decision in accordance with the requirements of the Local Government Act 2002 (the Act). Staff have assessed the requirements contained in Part 6 Sub Part 1 of the Act in relation to this item and have concluded the following.

    1.1. The decision does not significantly alter the service provision or affect a strategic asset.

    1.2. HBRC must in the course of its decision making give consideration to the views and preferences of persons likely to be affected or to have an interest in the

matter. (Section 78 of the Local Government Act 2002). Therefore staff believe further consultation is required before a final decision on the preferred option is made.

1.3. The decision does not fall within the definition of Council's policy on significance.

1.4. The persons affected by this decision are primarily ratepayers to the Upper Makara Scheme.

1.5. A number of options are set out in this report and its attachment.

1.6. The decision is not inconsistent with an existing policy or plan.

1.7. Given the nature and significance of the issue to be considered and decided, and also the persons likely to be affected by, or have an interest in the decisions made, Council can exercise its discretion and make a decision without consulting directly with the community or others having an interest in the decision.

Recommendation

The Environment and Services Committee recommends that Council:

1. Agrees that the decisions to be made are not significant under the criteria contained in Council's adopted policy on significance and that Council can exercise its discretion under Sections 79(1)(a) and 82(3) of the Local Government Act 2002 and make decisions on this issue without conferring directly with the community and persons likely to be affected by or to have an interest in the decision due to the nature and significance of the issue to be considered and decided.
2. Receives this report together with the attached Philpott report.
3. Instructs staff to seek ratepayer feedback on specific options through a special consultative process under the Local Government Act 2002, with a hearing held to consider submissions early in the 2013 year.

Mike Adye
GROUP MANAGER ASSET MANAGEMENT

Attachment/s

1 Makara Scheme Review

MAKARA SCHEME

REVIEW OF SCHEME MANAGEMENT OPTIONS

1. Brief Background

The Makara Stream Catchment Control Scheme, located 20 km due east of Waipawa was established in 1975 following a severe storm in the area that caused significant erosion in the catchment, flooding through Elsthorpe and widespread flooding of the valley floor.

The Scheme design incorporated a combination of detention dams, some stopbanking, and significant channel improvements along with soil conservation works on the steep hill country using retirement planting. The Scheme was designed to improve the stability and productivity of 800 hectares of flat land in the valley and 2,225 hectares of steep hill country. Five dams were constructed in the late 1970's and early 1980's on the Makara and Wharemate Streams to reduce the flood peaks in the stream channels and significant clearing and channel excavation work was carried out on the three stream channels.

The Makara Stream Catchment Scheme has an area of 7,645 ha.

The main Scheme feature is the Makara No. 1 Dam. The 12 m high dam is located 5 km due east of Elsthorpe and was designed to significantly reduce the peak flow in the downstream channel in a 5-year flood event. In larger floods events the operation of the spillway would reduce the flood control benefits provided by the dam.

When constructed the dam had a storage volume of 650,500m^3 (2012 calculation) but has lost 160,500m^3 due to siltation in the last 30 years since construction.

As a result of the large flood event in the Makara catchment in April 2011, a large sink hole opened up on the upstream face of the Dam following a partial failure of the main outlet culvert.

Owing to the high estimated cost of repairing the dam ($1.4 million), an investigation has been undertaken to identify alternative works that would result in at least the same level of service that was provided by the dam prior to its recent failure.

The cost of repairing the dam or constructing alternative flood control measures will be far greater than that which can be funded by the Scheme's current annual rate income. If the dam were to be funded through the Scheme, the rating system that was developed in 1977 for the Scheme should be reviewed to ensure rates are collected in an equitable manner.

The other four detention dams on the Scheme which also contribute to the control of flooding of the valley floor have not been considered in this review but have been taken into account when determining flood flows in the Makara Stream.

2. Catchment Hydrology and Hydraulic Modelling

The Hydrology of the Makara Scheme catchment has been reassessed by HBRC staff. Unfortunately the information available to access the hydrology is very limited and whilst the best available tools have been utilised to determine the flows in the Makara Stream, there is still significant uncertainty as to the magnitude of particular return period events.

Hydraulic models of the Scheme have been constructed using LIDAR survey data using both two dimensional (2-D) and one dimensional (1-D) modelling tools. Various maps have been produced using the 2-D modelling software showing the flood spread for with-dam and without-dam scenarios and whilst these indicate the likely flood spread during a relatively small flood in the catchment, the actual return period of the storm that causes that level of flooding is far less certain.

A one dimensional model has been developed to identify and quantify alternative stream management options as this is considered to give more realistic and comparable results.

3. Modelling Results

The two plots below show the results from the 2-D modelling for the with-dam and without-dam options. The return period of such a flood is not certain but may be in the order of a 5-year event.

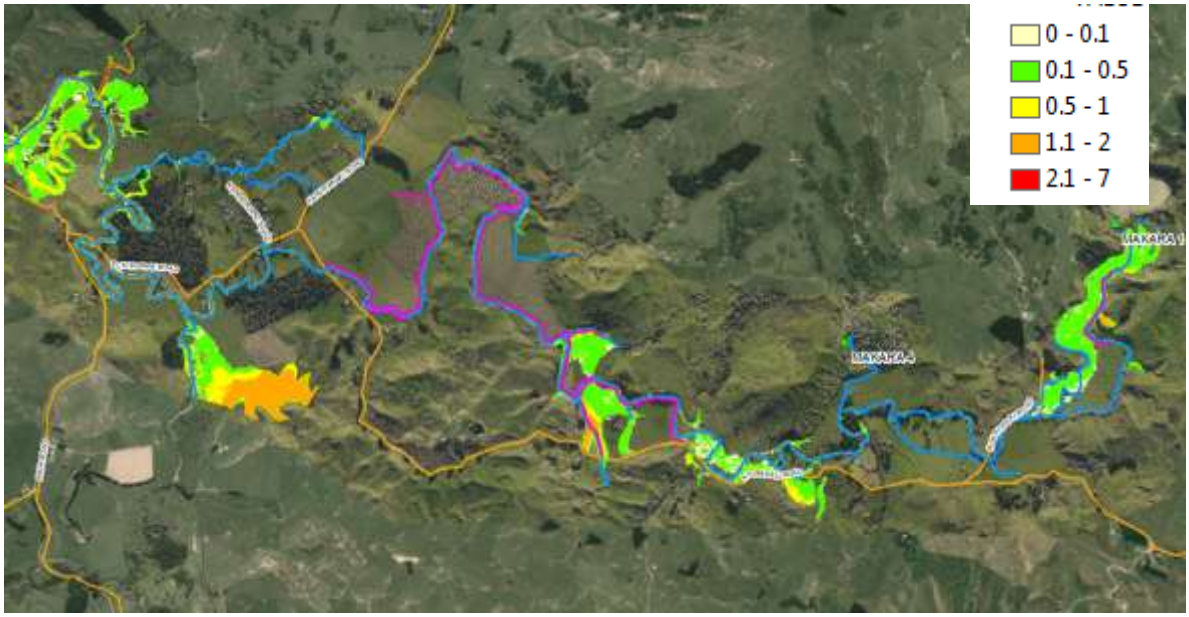


Figure 1: 5 year flood flow with Dam

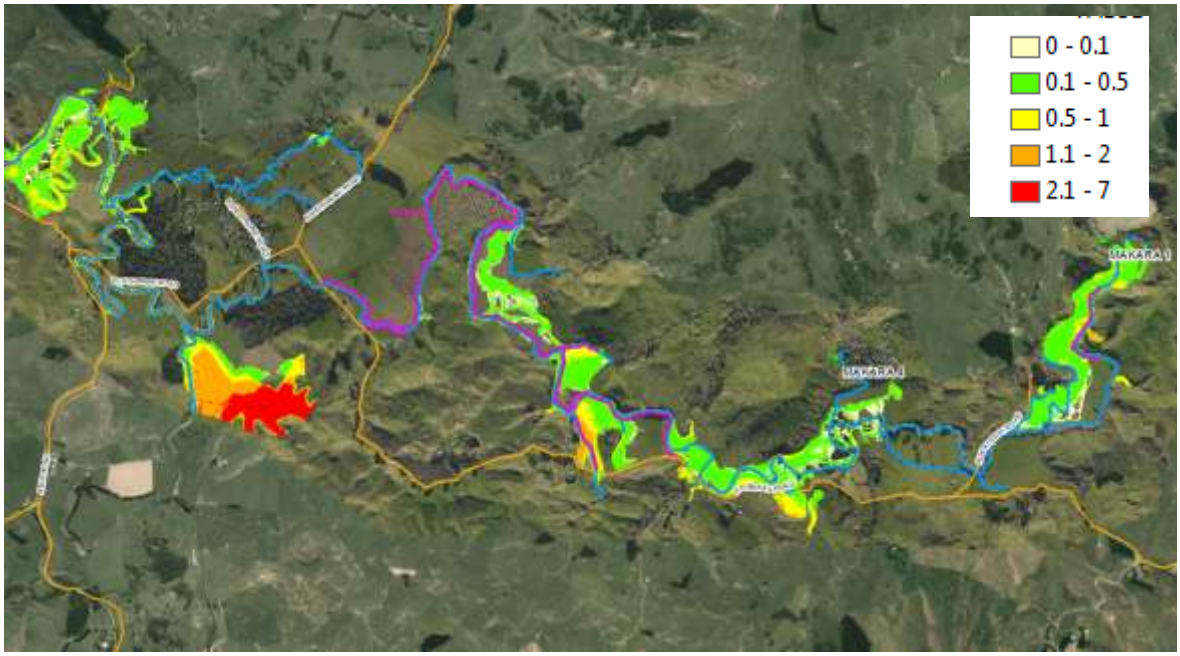


Figure 2: 5 year flood flow - No Dam

It can clearly be seen from Figures 1 and 2 that the dam does reduce the depth and extent of flooding.

An on ground inspection was undertaken to identify the locations where the modelling indicated that water spilled from the channel. In all cases where water spilled from the channel in the areas protected with stopbanking, it did so where the stopbanks were clearly low or even missing.

In reaches of the stream where there are no stopbanks, both the extent and depth of flooding was slightly increased with the depth increases generally no more than 100mm. (Can you reinforce this specifically to highlight that properties downstream of Elsthorpe have flood levels are little different with or without the dam)

It was clear from these inspections that flooding of this magnitude occurred as a result of a limited number of low sections of stopbank and relatively minor works could be undertaken to reduce the impacts of this flooding. The estimated cost of raising these low sections of stopbank and extending banks where required is $65,000 and would be required at some stage to optimise the existing stopbank system even if the dam was repaired.

The results of the one dimensional modelling generally confirmed the results of the 2-D modelling but are considered to provide more useful results for identifying and quantifying alternative flood control options for the Scheme. These models were developed such that water could not spill from the channel and as a result provided levels at which stopbanks could be constructed that would prevent flooding from the stream in a range of food events.

At the upstream end of the Makara Stream, it was found that the 2-D and 1-D models did not match and further investigation determine that the limited size of the channel at the upstream end of the stream was not well represented by the 2-D model owing to the grid size used in the modelling. These limitations do not affect the results of the 1-D model.

4. Flood protection options

Other than to increase the cross sectional area of the channel, which I do not consider to be a viable option unless undertaken to provide fill material in conjunction with stopbank raising, the only viable alternative to repairing the dam that would result in at least the same level of service that was provided by the dam prior to its recent failure, would be to raise, and to a limited degree, extend the stopbanks.

The issue then becomes, to what level the stopbanks should be raised.

As there is no original Scheme design report available that sets out the relationship between the dam outflow and the stopbank level, I have assumed that the stopbanks would have been constructed to optimise the performance of the dam

It is well understood that the Scheme was designed to provide 5-year flood protection but it was recognised that because of the nature of the works (the functioning of a detention dam) the scheme would still provide considerably benefit in larger flood events.

The modelling has been undertaken with the flow based on an updated analysis of the 5 year flood event and with a 10 year flood event. Whilst the limitations to the available data do not give precise information of flood levels for particular return period events, the results can be used with confidence to compare the flood levels for the 5 year event with those for the 10-year event. Figures could be provided for larger events if required.

The long sections in Figures 4 to 9 below show the lengths of existing stopbank and the flood profiles for the 5 and 10-year flood events both with and without the dam.

The following tables set out the details of the works required to provide a consistent level of protection to the properties bordering the Makara Stream from both a 5-year and a 10-year flood event if the Makara No1 dam was decommissioned.

Table 1: Stopbank upgrade details (No Freeboard)

	5 - Yr flood protection **Freeboard = nil**				**10 - Yr flood protection** **Freeboard = nil**			
Location Refer to Figure 3	length of stopbank to be raised (m)	Volume of fill (m^3)	Estimated cost ($)	area affected by raising (hectares)	length of stopbank to be raised (m)	Volume of fill (m^3)	Estimated cost ($)	area affected by raising (hectares)
L1	477	640	11,526	0.10	554	1,683	30,297	0.19
S1	858	3,618	65,121	0.32	1004	5,058	91,052	0.52
S2	389	546	9,833	0.10	891	2,203	39,652	0.25
T1	9	34	612	0.03	827	1,349	24,288	0.19
T2	0	-	-	0.00	10	7	128	0.00
T3	0	-	-	0.00	226	209	3,754	0.06
Bridge raising			200,000				200,000	
Oposite bank			50,000				50,000	
TOTALS	**1,733**	**4,838**	**$337,092**	**0.56**	**3,512**	**10,510**	**$439,171**	**1.21**

Table 2: Stopbank upgrade details (300mm Freeboard)

	5 - Yr flood protection Freeboard = 300mm				10 - Yr flood protection Freeboard = 300mm			
Location Refer to Figure 3	length of stopbank to be raised (m)	Volume of fill (m^3)	Estimated cost ($)	area affected by raising (hectares)	length of stopbank to be raised (m)	Volume of fill (m^3)	Estimated cost ($)	area affected by raising (hectares)
L1	477	1,948	35,064	0.19	554	3,297	59,354	0.30
S1	858	6,130	110,339	0.47	1004	8,902	160,243	0.69
S2	389	1,911	34,394	0.21	891	4,211	75,791	0.36
T1	9	683	12,287	0.11	827	3,795	68,316	0.35
T2	0	0	4	0.00	10	54	965	0.02
T3	0	37	660	0.03	226	852	15,334	0.13
Bridge raising			200,000				200,000	
Oposite bank			50,000				50,000	
TOTALS	**1,733**	**10,708**	**$442,749**	**1.00**	**3,512**	**21,111**	**$630,003**	**1.85**

Table 3: Stopbank upgrade details (300mm Freeboard – Upgradeable to 10 yr)

	5 - Yr flood protection Freeboard = 300mm 5 m topwidth that can be later raised to 10 yr flood protection			
Location Refer to Figure 3	length of stopbank to be raised (m)	Volume of fill (m^3)	Estimated cost ($)	area affected by raising (hectares)
L1	477	2,515	45,263	0.37
S1	858	7,818	140,729	0.74
S2	389	2,497	44,945	0.39
T1	9	876	15,761	0.35
T2	0	0	9	0.01
T3	0	50	898	0.14
Bridge raising			200,000	
Oposite bank			50,000	
TOTALS	**1,733**	**13,756**	**$497,606**	**1.99**

In preparing these tables, the following allowances have been made:

- the stopbank top width will be increased to at least 3m to aid construction and compaction;
- a freeboard allowance of zero to 300 mm has been added to the design water level;
- a contingency of 20% has been allowed for in the estimated costs;
- no allowance has been made for setting the stopbank back when upgraded to move it away from eroding riverbank if required;
- an allowance of $200,000 for the raising of the 4 farm bridges; and
- an allowance of $50,000 for additional stopbanks to protect small areas affected by the raising that are not currently protected.

The allowance for bridge raising assumes that the bridges will be able to be raised by raising the abutments.

When there is a stopbank along one side of the stream only, raising this stopbank will increase the flood level on the other side of the stream. In most cases there is only a very narrow strip of land along the unprotected side of the stream and where this is not the case, stopbank could be constructed to protect the area.

ESTIMATED TOTAL COST RANGE= $337,000 to $630,000 depending on option chosen. This includes the bridge raising and the protection of the current unprotected areas.

The $65,000 estimate referred to Section 3 above would only raise the very low sections of stopbank where water would spill from the stream in relatively small flood events and should be undertaken over time as a maintenance measure even if the dam was restored.

The locations of the sections of stopbank are set out in Figure 3.

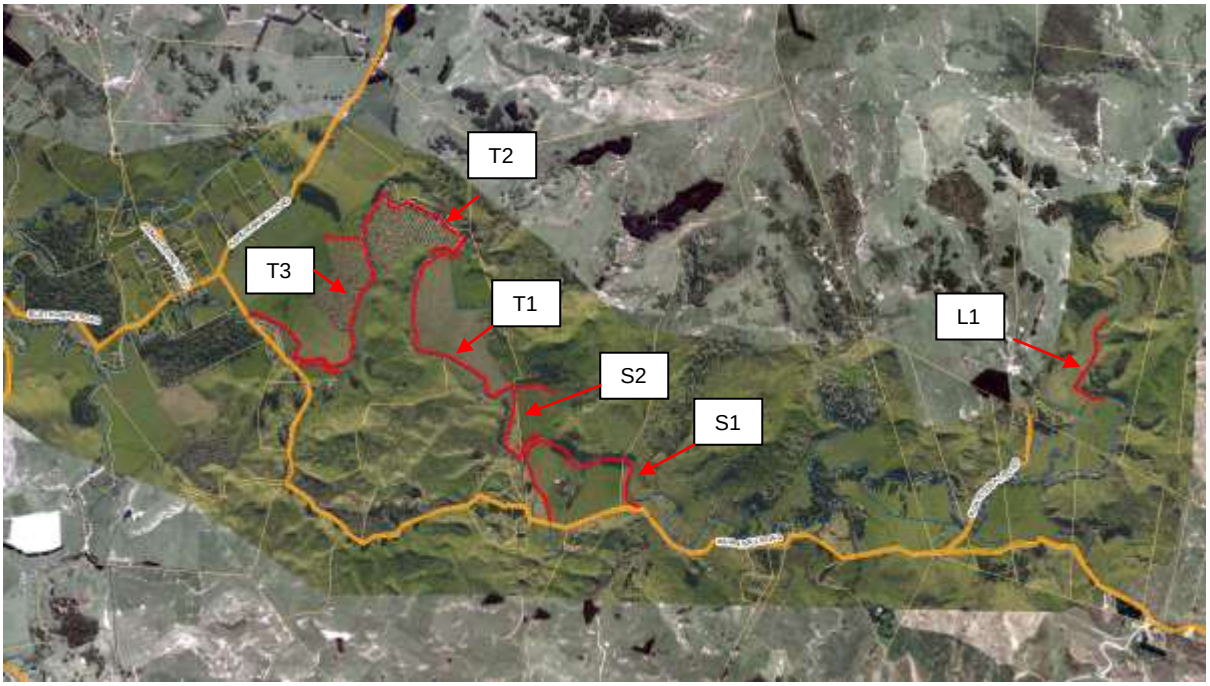


Figure 3: Stopbank locations

Note: The flood levels shown on figures 4 to 9 do not include the allowance for freeboard.

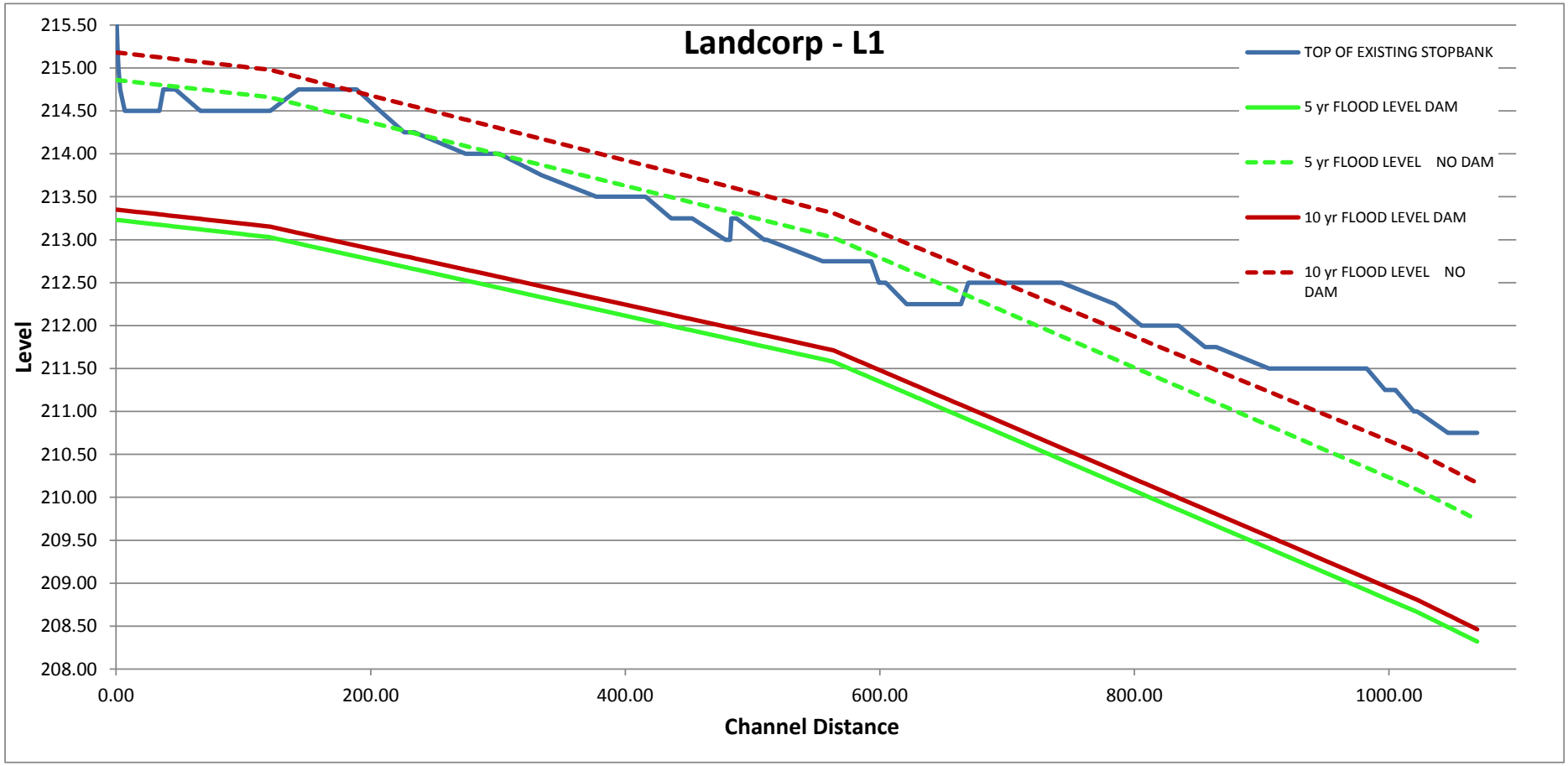


Figure 4: Stopbank profiles and flood depths L1

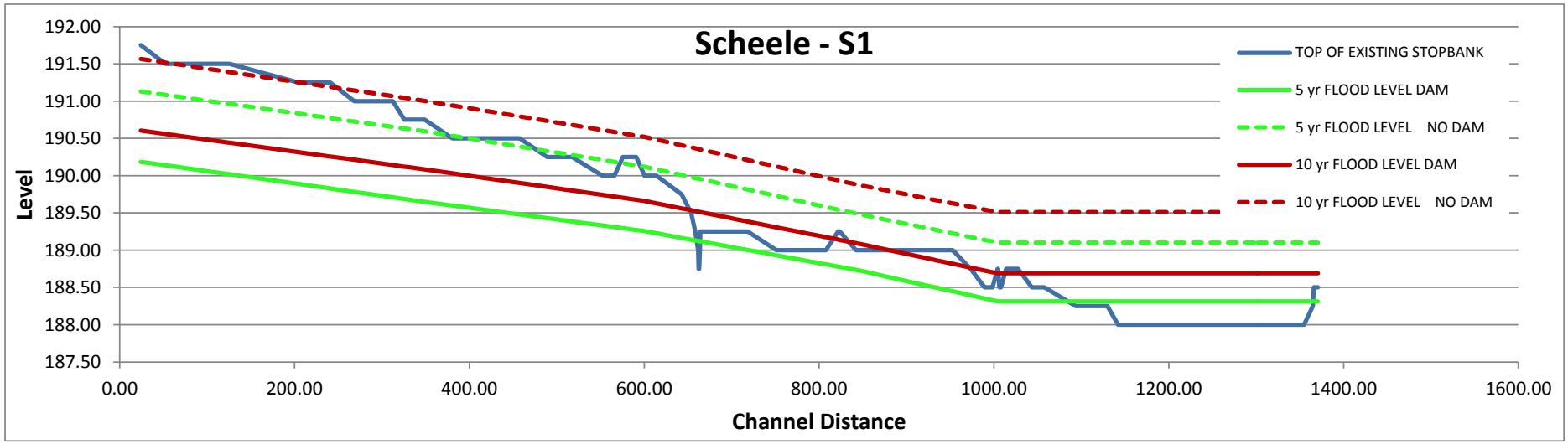


Figure 5: Stopbank profiles and flood depths S1

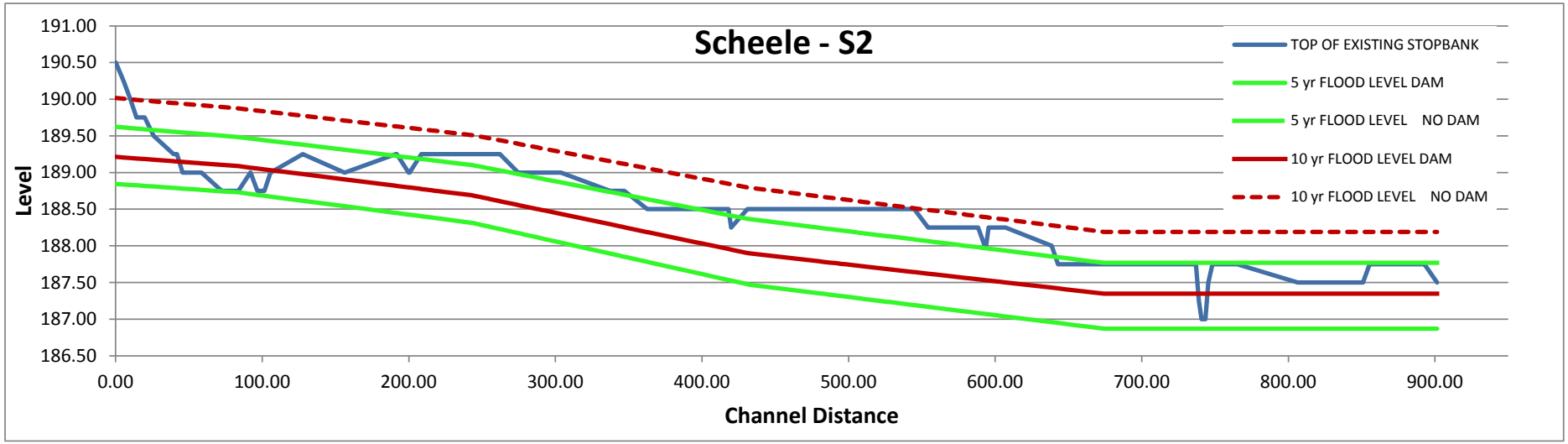


Figure 6: Stopbank profiles and flood depths S2

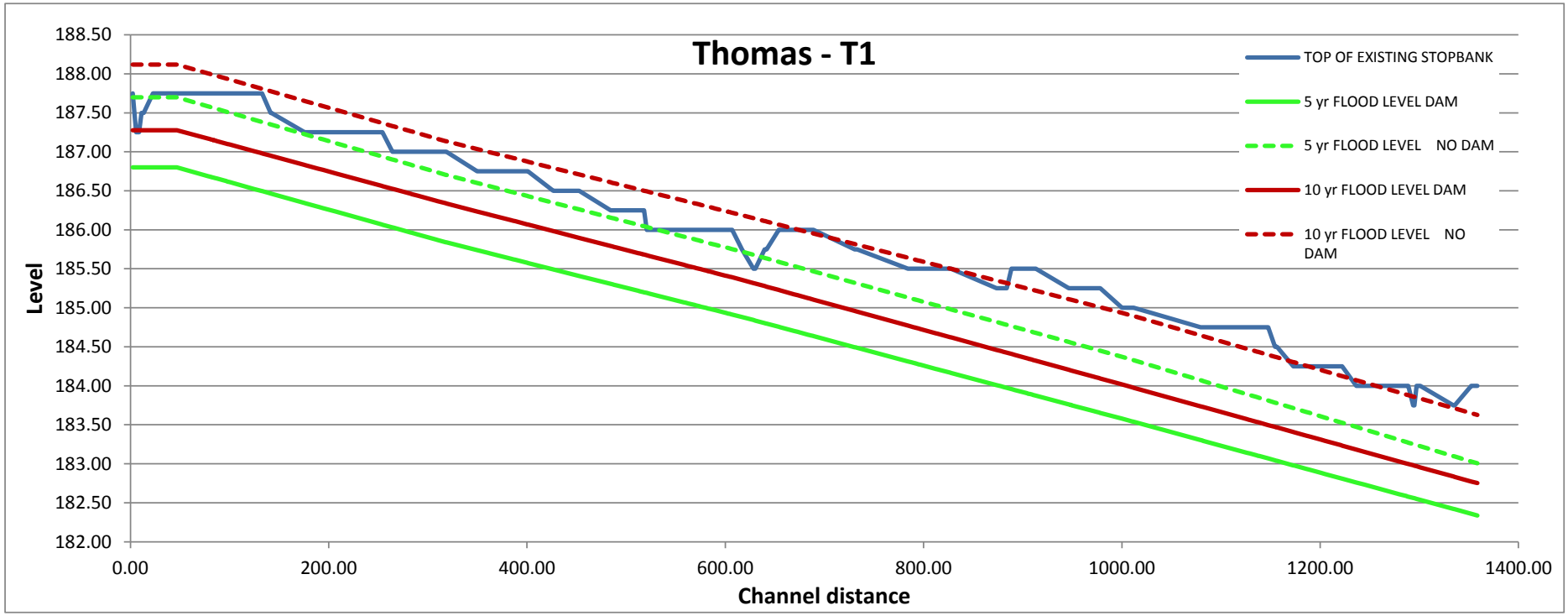


Figure 7: Stopbank profiles and flood depths T1

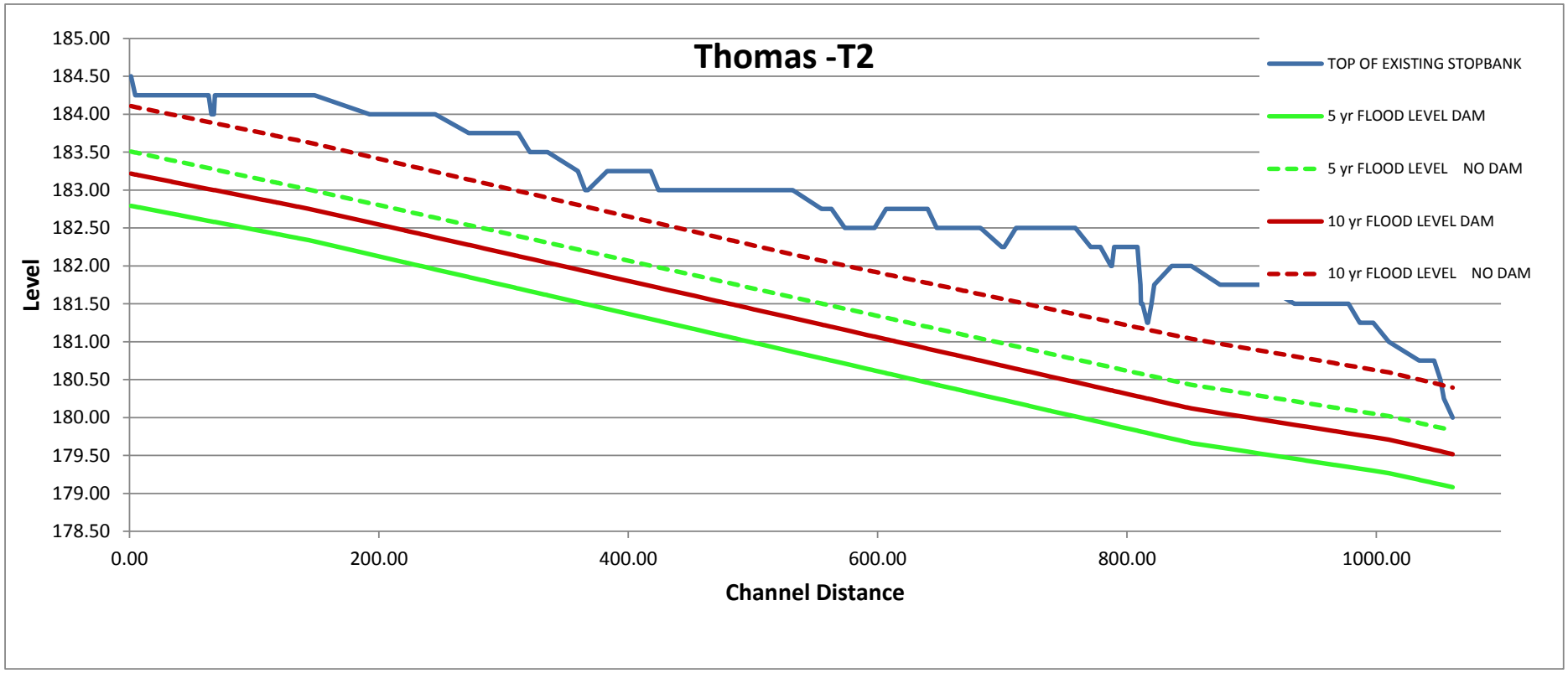


Figure 8: Stopbank profiles and flood depths T2

Item 8 Attachment 1

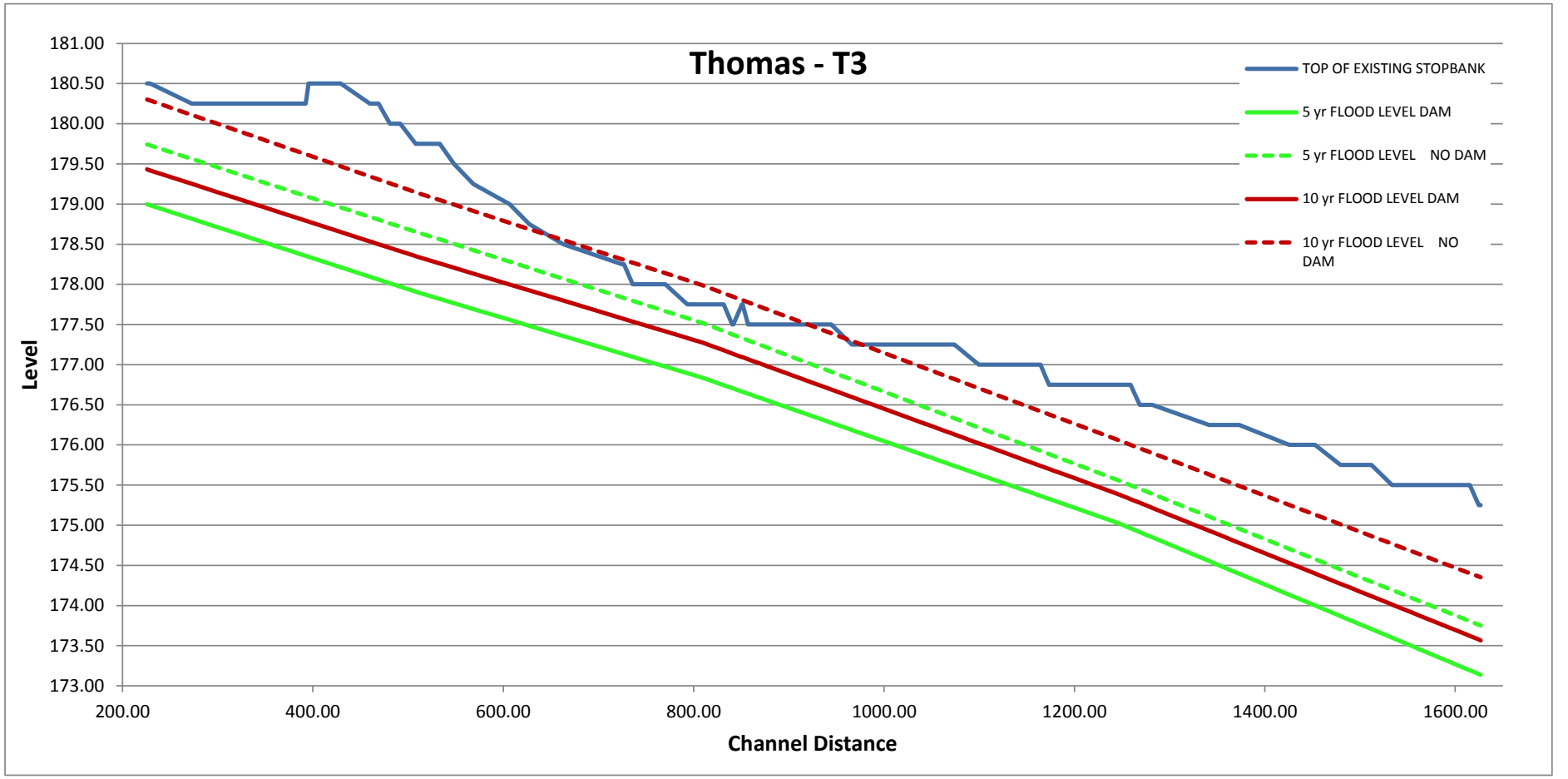


Figure 9: Stopbank profiles and flood depths T3

5. Effects on Houses on the Floodplain

The house located on the right bank of the Makara Stream directly downstream of Kairakau Road was flooded in 2011 and is susceptible to being flooded in future flood events whether the dam is repaired or not.

Removing the dam would increase flood levels in the stream adjacent to the house. The modelling shows that in the 10-year event the freeboard would be reduced from 1.2m to 0.6m.

Raising the house would provide a greater long term benefit to the property and this could be considered as a scheme cost if the decision was made not to repair the dam.

6. Effects on the farmland downstream of Elsthorpe

Modelling shows that the area downstream and to the west of Elsthorpe floods significantly even in a 5 year event with the dam operating and the increase in water depth as a result of not repairing the dam would be less than 100mm. The modelling also shows that the increased area affected by the flooding would be relatively small.

Recent channel clearing works undertaken well downstream of this area is reported to have significantly improved the flooding situation in this area by either lowering water levels or reducing ponding times.

The area is currently classified B class in the Scheme rating system yet has no stopbanking to protect it. If the Scheme was reclassified this area could be reassessed as with this slight increase in flood depth and frequency, the affected area may be better included in C class.

The flooding depth in the lower Wharemate area would increase slightly if the dam was not repaired but there is no significant increase in the extent of flooding and thus any adverse effect likely to be no more than minor. The recent clearing works in the lower Makara Stream will also reduce ponding times in this area.

7. Rating System Review.

The Makara Scheme rating system was developed in 1976 with a final report presented by the classifiers, Messer's Jones and Simons.

The rating system was established under the provisions of the Soil Conservation and Rivers Control Act 1941 and the 1959 amendment.

The rating system established 5 direct benefit rating classes, A to E and an indirect benefit rating class, F. The rating differentials were 100, 80, 65, 35, 5 and 2 respectively.

In determining the direct benefit rating differentials, the classifiers took into consideration the effects of flooding, siltation, potential stock losses, the capital cost of

new stock, the increase in stock carrying capacity and the increased opportunity to effectively grow crops on the land.

The analysis assigned a dollar value to these matters to determine a relative degree of benefit between classes.

The most significant matters in the analysis were the increase in stock carrying capacity and the increased opportunity to effectively grow crops on the land.

The assessment undertaken by the classifiers has been reviewed by using up to date gross margins for livestock farming and for cropping.

In assessing the benefit derived for livestock farming, the classifiers determined the stock carrying capacity of the land as it was pre scheme and their assessment of what it would be post Scheme. I have retained those assessments in the update.

I have not re-evaluated the E and F class figures in this process. They would be assessed if a decision to reclassify the Scheme was made.

To simplify this process I have also assumed that the main crop planted would be maize which produces a gross margin of $2400 per hectare. The gross margin for stock has been taken to be $550 per hectare.

The table below indicates the level of change that could be expected if the rating system was updated to reflect changed land uses and Gross Margins relativities.

The area in which cropping is being undertaken has significantly increased since the classification was finalised in 1977 and the numbers in the yellow highlighted row in the table below would be a better reflection the relative benefits arising from those changes. The existing relativities are on the bottom row of the table.

In my opinion the differences are not significant especially in light of the relatively small rate collected. If however the rate income required was to increase significantly, the rating system should be further assessed and changes made if the incidence of rates would change significantly.

Table 4: rating system assessment

Benefit derived from		Rating Class			
		A	B	C	D
Reduction in flooding		$ 1.09	$ 0.54	$ 0.49	$ 0.93
reduction in siltation		$ 10.81	$ 6.22	$ 5.74	$ 5.57
Reduced stock losses		$ 1.18	$ 3.48	$ 3.21	$ 4.83
capital cost of stock		$ 1.96	$ 5.78	$ 5.32	$ 8.01
increases in stock carrying capacity		$432.14	$ 202.04	$229.17	$ 67.35
increase in ability to crop		$531.25	$ 850.00	$743.75	$ 159.38
increased % from - to		0% to 25%	7.5% to 47.5%	0% to 35%	7.5% (no change)
TOTAL BENEFIT		$ 978	$ 1,068	$ 988	$ 246
Rating %		**100%**	**109%**	**101%**	**25%**
% crop		75%	75%	50%	15%
TOTAL BENEFIT HIGH CROP %		$ 2,041	$ 1,812	$ 1,306	$ 405
Rating %		**100%**	**89%**	**64%**	**20%**
Existing Rating %		**100%**	**80%**	**65%**	**35%**

8. Summary

Whilst there is insufficient information available to precisely determine the performance of dam and the return period of flood flows either with or without the Makara No.1 dam, the modelling undertaken provides information with which to base a decision on whether or not to repair or decommission the dam.

The flood profiles show that there are significant lengths of stopbank that do not follow the flood profile and there are areas where even in relatively small flood events, water would overtop the banks and flood relatively large areas of the flood plain. Restoring the dam would not deal with these problem areas whereas with the proposed stopbank raising would achieve a common standard of protection along the entire stopbank length.

This report demonstrates that for approximately half the cost of restoring the dam, the level of protection provided by the Scheme could actually be enhanced by the raising of the existing stopbank system along the Makara Steam.

There are some potential adverse effects arising from the decommissioning of the dam but these are either relatively minor or can be effectively and economically mitigated by appropriate works. There are however some areas affected by deeper flood flows but these areas are generally already affected and any increased adverse effects, all be them minor, could be reflected in a modified rating system.

The assessment of the rating system shows that whilst more intensive changes in land use and gross margins for various farming operations have impacted on the rating system, the changes are relatively minor and unless a significant increase in the Scheme rate was required, it is recommended that no change is made to the rating system at this time.

John Philpott
November 2012

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 05 December 2012

SUBJECT: REGIONAL OPEN SPACES

Reason for Report

1. This report suggests that all open space areas owned or administered by HBRC to which the public have access for recreational use are managed under a regional park framework.
2. Under this framework all open space areas will be classified on the basis of their core values, with individual management plans for each area aimed at maintaining and enhancing these core values.
    2.1. The Regional Parks Network Plan sets out:
    2.2. The framework under which the open space areas are proposed to be managed,
    2.3. The network wide objectives
    2.4. The core values associated with each of those areas
    2.5. The proposed policies under which the network will be managed to meet the vision and objectives for the network, and Individual Park Plans for confirmed Regional Parks
3. Attached is a draft Part 1 (of 4) of the Regional Park Network Plan.
4. Council endorsement for this approach is sought.

Background

5. At its November 2011 meeting, Council instructed staff to undertake a review of opportunities associated with open spaces for public access within the region as a resource for public enjoyment including recommendations for improving the use of current facilities and spaces, and linkages between these, that would provide for the opportunities identified.
6. The draft Parks Network Plan is intended to be an overarching document which provides for HBRC to take a considered approach to the use and development of its open space lands for public recreation and enjoyment. It will provide clear and defendable policies to enable decision making on the appropriate use of each open space area, thus minimising potential conflict between different public uses, and/or public use and biodiversity, production, flood protection, environmental or investment goals for the land.
7. Within the framework set out in the draft Parks Network Plan, management plans for each open space area will be developed or reviewed. The table below sets out the open space areas currently owned or administered by HBRC together with their proposed park classification and the status of their management plan.

Name	Proposed primary classification criteria	Management plan review date
Pekapeka wetland	Conservation	Last plan expired June 2010. New draft in progress.
Pakowhai Country Park	Recreation	No current plan. Drafting of new plan to commence 2013 / 2014
Waitangi Wetlands (Tutaekuri, Ngaruroro estuary and Muddy Creek Wetlands)	Conservation / Recreation	Current plan expires June 2013. Draft new plan to commence 2013 / 2014
Tukituki estuary	Conservation / Recreation	Current plan expires June 2013. Suggest include in Waitangi Wetlands.
Tutira Country Park	Conservation / Recreation	Current plan expires June 2014. Draft new plan to commence 2014
Waihapua Forest Park	Investment (Recreation - potential)	None (suggest include in Tutira Regional Park as a special management zone).
Tangoio Soil Conservation Reserve	Investment (Recreation – potential)	As above
Heretaunga Plains river Scheme land	Flood control (Recreation)	N/A (RPNP recreation policy to apply)
Upper Tukituki river Scheme land	Flood control (Recreation)	N/A (RPNP recreation policy to apply)
Pathways other than on river Scheme land	Recreation	N/A (RPNP recreation policy to apply)
Central Hawke's Bay forest blocks	Investment (Recreation - potential)	No current plan (Suggest drafting a basic IPP for these areas to direct and manage recreation activity and development if/when public use is facilitated)

8. Staff have discussed the draft network plan with Department of Conservation. They advise that the draft network plan does not provide any barriers to achieve a more collaborative working relationship between HBRC and the Department, and believe that the clear framework set out in the draft will be an advantage in providing certainty over the future use of the areas.

9. Staff will hold discussions with other relevant stakeholders as part of the review or development of the management plan for each of the individual open space areas.

Decision Making Process

10. Council is required to make a decision in accordance with the requirements of the Local Government Act 2002 (the Act). Staff have assessed the requirements contained in Part 6 Sub Part 1 of the Act in relation to this item and have concluded the following:

    10.1. The decision does not significantly alter the service provision or affect a strategic asset.

    10.2. The use of the special consultative procedure is not prescribed by legislation.

    10.3. The decision does not fall within the definition of Council's policy on significance.

    10.4. No persons are directly affected by this decision.

    10.5. Options that have been considered are set out in this paper.

    10.6. The decision is not inconsistent with an existing policy or plan.

    10.7. Given the nature and significance of the issue to be considered and decided, and also the persons likely to be affected by, or have an interest in the decisions made, Council can exercise its discretion and make a decision without consulting directly with the community or others having an interest in the decision.

Recommendations

That the Environment and Services Committee :

1. Agrees that the decisions to be made are not significant under the criteria contained in Council's adopted policy on significance and that Council can exercise its discretion under Sections 79(1)(a) and 82(3) of the Local Government Act 2002 and make decisions on this issue without conferring directly with the community and persons likely to be affected by or to have an interest in the decision due to the nature and significance of the issue to be considered and decided.

2. Endorse the Regional Parks Network Plan subject to any changes that the Committee may wish to make.

3. Note that Part 2 (Policies & Objectives) and Part 3 (Individual Park Plans) of the Regional Park Network Plan are yet to be completed. Management plans for each of the individual open space areas will be reviewed or developed in accordance with the indicative programme set out in the briefing paper. Parts 2 & 3 will require Council approval prior to adoption and implementation.

Steve Cave
ENVIRONMENTAL MANAGER
OPERATIONS

Mike Adye
GROUP MANAGER ASSET MANAGEMENT

Attachment/s

1 Regional Parks Network Plan - Final Draft Under Separate Cover

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 05 December 2012

SUBJECT: INTENSIVE LAND USE APPROACH - PILOT IMPLEMENTATION PLAN

Reason for Report

1. A large part of the role of the HBRC Land Management team is to positively influence land use practices and their impact on water quality. Intensive land use, such as dairying and cropping, has the potential to have a significant impact on water quality.
2. Over the past 2 years the land management team has increased its focus on areas of intensive land use. Currently three staff are focussed on intensive land use issues. It is proposing to restructure resources to effectively build this by an additional two staff members in the next 12 months.
3. The key issue with intensive land use is nutrient (phosphorous (P) and nitrogen (N)) runoff and leaching into surface and ground water. High nutrient levels in the region's rivers results in unwanted weed and algal growth particularly during periods of low flow.
4. This report sets out a proposed approach to managing the effects of intensive land use on water quality, through the adoption of Good Agricultural Practice (GAP) and sub-catchment "nutrient hotspot" mitigation. An intensive assessment of water quality has been undertaken throughout the Ruataniwha Plains. This has identified that:
   4.1. P is the critical nutrient which is resulting in algae growth in the rivers.
   4.2. Some of the tributaries have much higher levels of nutrients than others.
5. Land Management staff will be preparing a non-regulatory implementation proposal to accompany the Tukituki Plan change. The following discussion outlines the fundamental approach to be included in that report.
6. The briefing paper updates Council on this approach.

Discussion

7. A considered non-regulatory implementation process will be significant in influencing the achievement of water quality outcomes. The proposed Plan Change has provided an opportunity for individual landholders, sub-catchment stakeholders and industry to proactively respond to wider community expectations for the managing water quality issues within catchments. Land management will play a key role in facilitating that process.
8. A generalised regulatory approach to manage phosphorus is accepted as being too coarse to address the specific nature of phosphorus loss from the landscape, other than the regulation of stock exclusion from waterways. While some regulation and compliance will be required to underpin any mitigation approach, significant reductions in nutrients entering waterways across the Tukituki Catchment can be achieved through the adoption of GAP by land users.
9. It is anticipated that much of the phosphorus impacting on water quality within sub-catchment hotspots is arising from specific parts of a farm e.g. porous soils, or a wet area draining directly to a water body, or through specific farming activities e.g. silage feed areas. These are referred to as critical source areas. By identifying and focussing cost effective mitigation measures to these critical source areas it is expected that a significant portion of the nutrient run off can be stopped, minimising the resource implications and maximising the effectiveness of mitigation measures. Identifying and addressing these will however require a detailed sub-catchment assessment and a collaborative approach with land owners and industry.

10. The Land Management Team is developing two complementary approaches to affect the management actions required by land users to address the problem.

    10.1. Implementing a catchment wide nutrient management framework. This will involve:

        10.1.1. Awareness raising and transitional support to landholders dealing with the implications of the plan change on their existing land use.

        10.1.2. Working closely with the primary sector to develop a framework and suite of practice change mechanisms (i.e incentives, training, field days, farm planning templates etc) and processes to support the adoption of GAP.

        10.1.3. The creation and implementation of a marketing strategy to target and operationalise the GAP practice change mechanism.

        10.1.4. A framework for auditing and reporting on the adoption of GAP to Council and catchment stakeholders.

    10.2. Sub-catchment hotspot mitigation will involve -

        10.2.1. Developing stakeholder governance structures to assist develop, drive and audit sub-catchment plan implementation. Undertake analysis of the key characteristics and manageability of nutrient issues within sub-catchments, understand the socio-economic drivers and barriers to change, establish rapport with key community stakeholders and build up the collaborative support, processes and resources required to influence change in these sub-catchments.

        10.2.2. Collaboratively working with sub-catchment communities in the design, decision making and implementation of a sub-catchment nutrient management plan via a participatory community engagement and capacity building program.

11. Support for the project from the primary sector industry groups is essential for the success of this process. Preliminary discussions to date have indicated that there will be strong support from industry.

12. The approach set out in the proposed implementation process is consistent with the Hawke's Bay Land and Water Management Strategy and recommendation 15 of the third Land and Water Forum Report (Land and Water Forum 2012). There will also be a number of spin off benefits from the approach, including:

    12.1. A collaborative approach involving multiple parties should build trust and confidence between those parties and result in a more durable response.

    12.2. While the focus will be on environmental outcomes, these will not be sustainable unless there is a positive impact on farm profitability and community and cultural wellbeing.

    12.3. In the absence of complete information at the commencement of the process, the approach can be adapted over time as the understanding of the issues, and the impact of specific interventions is improved. This will allow desired outcomes and responses to be modified over time, innovation to occur, and peripheral benefits to be realised.

Financial and Resource Implications

13. The project is estimated to cost $159,000 over its initial 12 month duration.

14. The staff resource will include two land management staff with periodic support from the science group.

15. In addition there will be a need to support on farm initiatives to mitigate nutrient loss from sub-catchment critical source areas through strategies like riparian strips, and creating wetlands to strip nutrients.

16. Staff propose that this is funded as follows:

16.1. Ruataniwha water storage project – should the RWS project proceed it is likely that it will include funding for the mitigation of intensive land use impacts and biodiversity offsets. This funding could be aligned with the Land Management Team initiatives. However this is unlikely to support this process for the next few years.

16.2. The Regional Landcare Scheme has a funding provision of $880,000. Staff propose that this is allocated approximately as set out in the table below.

	2012/13	**2013/14**	**2014/15**
Research	$120,000	$80,000	$75,000
Subsidy on poles	$200,000	$200,000	$200,000
High scoring RLS projects and QEII initiatives	$250,000	$245,000	$250,000
Projects supporting the Trees on farms initiative	$0	$0	$0
Fund external funding requirements for pilot and subsequent catchment areas	$160,000	$75,000	$75,000
Projects supporting intensive land use nutrient mitigation	$70,000	$200,000	$200,000
TOTAL	**$800,000**	**$800,000**	**$800,000**

Note that where there is significant demand for RLS subsidy in any one of the above areas, staff may adjust the subsidy rate provided to, as far as possible, match supply and demand.

16.3. The Central and Southern Scheme was established in 2003:

16.3.1. to fund stream and river control work where there are no clear individual beneficiaries, or the number of beneficiaries is large and the quantum of work small; and

16.3.2. to purchase land adjacent to rivers and streams where Council ownership would be prudent.

16.4. Where land adjacent to rivers and streams is planted to mitigate the impacts of nutrient entering waterways, HBRC should secure that land either through purchase or through an easement. Costs associated with the securing and planting of land could be met through this Scheme. As at 30 June 2012 the Scheme operational account had a credit of $319,678. This has built up over a number of years because no suitable parcels of land have become available to purchase.

16.5. A budget of $10,000 per year is included within the overall Upper Tukituki Flood Control Scheme budget to maintain small tributary streams. Once new planting is established, this could be maintained by the Scheme. An increase of the current budget for maintenance of small streams could be accommodated within the Scheme with a modest increase in Scheme targeted rates.

Decision Making Process

17. Council is required to make a decision in accordance with the requirements of the Local Government Act 2002 (the Act). Staff have assessed the requirements contained in Part 6 Sub Part 1 of the Act in relation to this item and have concluded the following.

    17.1. The decision does not significantly alter the service provision or affect a strategic asset.

    17.2. The use of the special consultative procedure is not prescribed by legislation.

    17.3. The decision does not fall within the definition of Council's policy on significance.

    17.4. The persons affected by this decision are primarily the owners of land within the target catchments.

    17.5. The option that is presented in this report is consistent with the Hawke's Bay Land and Water Management Strategy which resulted after the consideration of a range of possible approaches.

    17.6. The decision is not inconsistent with an existing policy or plan.

    17.7. Given the nature and significance of the issue to be considered and decided, and also the persons likely to be affected by, or have an interest in the decisions made, Council can exercise its discretion and make a decision without consulting directly with the community or others having an interest in the decision.

Recommendation

The Environment and Services Committee recommends that Council:

1. Agrees that the decisions to be made are not significant under the criteria contained in Council's adopted policy on significance and that Council can exercise its discretion under Sections 79(1)(a) and 82(3) of the Local Government Act 2002 and make decisions on this issue without conferring directly with the community and persons likely to be affected by or to have an interest in the decision due to the nature and significance of the issue to be considered and decided.
2. Receives the report.

Campbell Leckie
MANAGER LAND SERVICES

Mike Adye
GROUP MANAGER ASSET MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 05 December 2012

SUBJECT: STATUTORY ADVOCACY UPDATE

Reason for Report

1. This paper reports on proposals forwarded to the Regional Council and assessed by staff acting under delegated authority as part of the Council's Statutory Advocacy project between 1 October to 30 November 2012.
2. The Statutory Advocacy project ('Project 196') centres on resource management-related proposals upon which the Regional Council has an opportunity to make comments or to lodge a submission. These include, but are not limited to:
   - 2.1. resource consent applications publicly notified by a territorial authority
   - 2.2. district plan reviews or district plan changes released by a territorial authority
   - 2.3. private plan change requests publicly notified by a territorial authority
   - 2.4. notices of requirements for designations in district plans
   - 2.5. non-statutory strategies, structure plans, registrations, etc prepared by territorial authorities, government ministries or other agencies involved in resource management.
3. In all cases, the Regional Council is **not** the decision-maker, applicant nor proponent. In the Statutory Advocacy project, the Regional Council is purely an agency with an opportunity to make comments or lodge submissions on others' proposals. The Council's position in relation to such proposals is informed by the Council's own Plans, Policies and Strategies, plus its land ownership or asset management interests.
4. The summary plus accompanying map outlines those proposals that the Council's Statutory Advocacy project is currently actively engaged in.

DECISION MAKING PROCESS

5. Council is required to make a decision in accordance with Part 6 Sub-Part 1, of the Local Government Act 2002 (the Act). Staff have assessed the requirements contained within this section of the Act in relation to this item and have concluded that, as this report is for information only and no decision is to be made, the decision making provisions of the Local Government Act 2002 do not apply.

RECOMMENDATION

1. That the Environment and Services Committee receives the Statutory Advocacy Update report.

Esther-Amy Bate
PLANNER

Helen Codlin
GROUP MANAGER STRATEGIC DEVELOPMENT

Attachment/s

1 Statutory Advocacy Update
2 Statutory Advocacy Map

Statutory Advocacy Update (as at 20 November 2012)

Received	TLA	Map Ref	Activity	Applicant/ Agency	Status	Current Situation
10 September 2012	**NCC**	**4**	**Stormwater Bylaw 2012** Draft Bylaw to enable NCC to inspect and control stormwater quality from individual premises discharging into NCC's stormwater network.	**NCC**	**Notified by NCC using LGA special consultative process (hearing pending)**	**20 November 2012** • Submission was lodged supporting in part draft Bylaw. Submission suggested amendments to Draft Bylaw to remove ambiguities and potential confusion about how Bylaw relates to HBRC's role under RMA as regulator of discharges to land/air/water. Submission also noted that Bylaw is only one tool of many that can be used to improve manner in which stormwater is managed in Napier City. • Hearing is scheduled for 21 November 2012.
12 August 2011	**NCC**	**3**	**Proposed Plan Change 7 – Jervoistown** The purpose of the plan change is to create a new zone with new policies and rules for Jervoistown. The plan change seeks to counteract the effects of adhoc development within Jervoistown.	**NCC**	**Notified by NCC** **(hearing pending)**	**20 November 2012** • Pending hearing by NCC on submissions. Hearing is scheduled for 28 November 2012. **15 August 2012** • Submission period closed 22 June 2012. • In general the Council is supportive of the broad intention of the plan change however notes that servicing constraints are a limiting factor. In particular a high water table contributing to the cross contamination of wastewater and stormwater, at capacity stormwater drains and cross boundary runoff and flooding. • Council staff noted that Jervoistown is not included in the preferred settlement pattern included in the Heretaunga Plains Urban Development Strategy. **11 May 2012** • Formal notification of Plan Change 7.
24 May 2010	**NCC**	**2**	**Resource Consent - Subdivision** The application seeks to subdivide an area of land currently zoned as main rural on 66 Franklin Road, Bay View into 6 lots and undertake earthworks.	**Brian Nicholls**	**Notified by NCC Restricted Discretionary** **(hearing pending)**	**20 November 2012** • No further update. Pending hearing by NCC. • Previously HBRC lodged a submission opposing proposal unless all 6 lots were fully serviced. HBRC staff have had discussions since lodging submission with NCC and applicant. Discussions focused on stormwater and wastewater design options for the proposed subdivision.
23 August 2010	**NCC**	**1**	**Resource Consent – Subdivision** The application seeks to subdivide 58 McElwee Street, Jervoistown Certificate of Tile HBM2/1351 into two separate lots.	**Mr B. Joseph** **Consultant – Consult Plus Ltd**	**Notified by NCC Restricted Discretionary** **(subject to appeal)**	**20 November 2012** • No further update. Application on hold pending hearing by NCC re Plan Change 7. • Previously HBRC lodged submission opposing proposal. NCC declined consent and applicant appealed NCC's decision. HBRC joined appeal proceedings as an interested party. HBRC's interests primarily relate to stormwater management and disposal.

Statutory Advocacy

1. Subdivision – Mr. B. Joseph
2. Subdivision – Mr. Brian Nicholls
3. Plan Change 7 – Jervoistown Zone
4. Stormwater Bylaw 2012 – NCC

Item 12

Attachment 2

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND SERVICES COMMITTEE

Wednesday 05 December 2012

SUBJECT: GENERAL BUSINESS

INTRODUCTION

This document has been prepared to assist Councillors note the General Business to be discussed as determined earlier in Agenda Item 3.

ITEM	TOPIC	COUNCILLOR / STAFF
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