Environment Bay of Plenty

Rivers and Drainage Scheme Review

2009

This report has been prepared on the basis of limitation set out on page 5

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Contents

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Executive Summary

Environment Bay of Plenty (EBOP) is responsible for the management of 6 river and drainage schemes across the region.

The new Ten Year Plan (TYP) covering the period 2009 – 2019 shows increases to river scheme targeted rates over the next ten years relative to 2008 / 2009 levels.

While overall the annual movement in targeted rates from 2009 to 2010 is minimal (2% or $81k), the wider variations in the categories of cost and the movements in individual schemes have prompted EBOP to investigate why these have occurred. The Deloitte review was to specifically focus on the increase in cost between 2009 and 2010 caused primarily by increases in Corporate Support Charges and Engineering Charges allocated to the schemes.

EBOP has implemented recent changes to both the budgeting model used to develop the TYP and also the overhead allocation model used to allocate corporate costs to each EBOP Operational Group and individual river schemes within the Rivers and Drainage Group. Previously corporate costs were recovered by a mixture of specifically allocating some costs directly to a Group (and scheme within the Rivers and Drainage Group), with the remainder of costs being allocated using an "on-cost" formula based on the quantum of salaries and wages incurred. Under the new TYP Corporate overhead cost is now allocated based on drivers that have been determined by new Service Level Agreements (SLA's) and based on fully absorbed cost.

In our experience many local authorities experience difficulties in implementing cost allocation systems. The move by Council to introduce service level agreements as the basis for making fully absorbed overhead cost allocations is a step in the right direction and in accordance with recommended practice and should, if implemented appropriately, result in a more accurate allocation of overhead costs than occurred under the previous "on cost" regime that Council used.

The changes to the allocation bases that Council have implemented have had a significant impact on the quantum of both corporate support costs and engineering costs charged to the schemes. The changes that we disagree with are listed below.

- Each staff member attracts the same proportion of overhead cost irrespective of whether they are a salary or wage earner. Previously the salary staff were allocated a larger proportion of overhead cost than wage staff in recognition that generally the wage staff placed less of a demand on a number of corporate support services as they tended to be more field based and this was appropriate for Rivers and Drainage staff.
- The new allocation methodology applies different drivers to different costs and in many instances the new driver is staff numbers which has meant a significant increase in cost to the Rivers and Drainage Group. This is because Rivers and Drainage has a high headcount but lower

than average salary level than other activity areas within Council. The average salary across Council, excluding Rivers and Drainage is $65k, yet the average Rivers and Drainage salary is $53k (18.4% less). Previously, corporate overheads were allocated based on the quantum of salary and wage dollars which meant that due to Rivers and Drainage staff having lower than average salaries, they attracted a smaller proportion of cost.

- The change in the allocation approach has resulted in some IS cost being recovered by way of special charge which is directly recoverable from users (eg. based on which groups have software licences) and the remainder of IS costs are being recovered based on a mixture of headcount and usage which has lead to a higher cost being allocated to Rivers and Drainage whereas previously Information Services costs were predominately specifically allocated to the Group or Groups that used the service and as a result there was not much cost left to recover through the use of the "on-cost" recovery.
- In the new TYP it is proposed that more engineering cost be recovered from the individual schemes for the engineering related activities such as Floodplain Management and Asset Management Plans. These costs were previously predominantly funded through general rates.

Based on our review and analysis, we make the following recommendations:

- Corporate overheads allocation:
    - Where head count is the primary allocation driver, the overhead allocation methodology should look at the different types of staff within each group first to recognise and exclude those staff who place minimal demand on services.
    - A usage rating (high/med/low) then needs to be applied to those staff that do make some use of the service.
    - The same driver that is used to allocate costs to operational groups should also be used to allocate costs at the scheme level.
- Engineering costs allocation:
    - We do not believe the charging of 50% of Floodplain Management Systems (FMS) cost to individual schemes has been justified. We recommend that until a robust and transparent analysis to define the appropriate cost apportionment is undertaken, the FMS continue to be fully funded from general funds
    - We do not believe allocation to each of the Schemes of both the AMP cost and Engineering Survey Programmes has been justified. For AMPs, Rangitaiki Drainage should not be charged, as we understand that the same ratepayers within Rangitaiki-Tarawera and Whakatane-Waimana are already paying for a share of this cost and Kaituna should not be allocated a disproportionally larger share than the others. Rather an apportionment of these costs should be based on each river scheme's asset value to ensure greater equity. For Engineering Survey Programmes, each scheme should be allocated their expected percentage of the total costs based on the

number and magnitude of cross sections and long sections. Ultimately, the actual survey cost for each scheme should be charged to each scheme.

- Plant and Vehicle costs allocation:
  - We believe the decision to own specialised items of plant and equipment is cost effective and justified at a direct cost level. We have been unable to get a satisfactory explanation of what is included in indirect costs, however, in our professional opinion, we believe the amount of interest cost is high
- SLA concept underpinning cost allocation methodology:
  - We concur with the concept of cost allocation based on SLA's but there are still some areas of concern. With regard to the SLA's that have been drafted but not signed off, we recommend that there is more detail provided either within the SLA document or as a supplementary workpaper that shows the reconciliation between the SLA and the cost allocation table. For example, the SLA Office Services – Records Management and Library Services notes that the allocation driver is staff numbers, however the allocation table itself allocates different proportions of these costs to Rivers and Drainage. If the allocation driver was the same across both we would expect the same proportion to be allocated.
- Operational management of schemes
  - The Rivers and Drainage Group develop additional process maps of their remaining key activities to drive improvements in operational efficiency and ensure effectiveness in achieving levels of service
  - The Rivers and Drainage Group develop a matrix to assess what level (or degree) of checking is required following a capacity review
  - The Rivers and Drainage Group implement a prioritisation process and tools across all the Rivers and Drainage schemes to ensure an effective maintenance and capital works programme is created to support efficient delivery.
  - The Rivers and Drainage Group review how they procure services from contractors
- Ratepayer Representation Model:
  - The existing Liaison Group model be substantially re configured and improved to form a framework for 'River and Drainage Scheme Advisory Groups'.
  - A range of improvements be implemented that have the capacity to substantially lift the effectiveness of these groups and to improve the level of engagement with scheme ratepayers. These recommended improvements are as follows:

- A written terms of reference should be developed and agreed to improve the Liaison Group's role and membership/representation
- ensure a triennial public meeting to ratify membership is held
- include volunteer technical appointees and
- improve the systems of reporting back to the wider ratepayer base based upon web and email

1. Scope

The Terms of Reference for this Project provided by Ken Tarboton on 17 February 2009 is as follows:

> *A review of indirect charges to the Rivers and Drainage Schemes, scheme business management practices, and scheme representation is proposed. The review will provide information that can be used to justify the fairness of the indirect charges and cost allocations, or provide alternative suggestions that can be used during consultation on the Draft Ten Year Plan.*
>
> 1. *Deloitte: Review internal charges that are proposed to be allocated to targeted Rivers and Drainage scheme ratepayers in the 2009-2019 Ten Year plan including:*
>
> - *All overhead charges,*
> - *All engineering charges (e.g. projects and investigations that are charged to schemes).*

The following are outside of scope:

- Environment Bay of Plenty has a statutory authority to retain and manage the schemes and their assets and has made policy decisions regarding the scheme rating and funding, specifically the differential rating system and the ratio of general to targeted rates. These aspects are not part of this requested review.
- The report will not be reviewing the quantum of Council overhead costs themselves as this review is being done by another party.

2. Limitations and Disclaimer

This Report has been prepared solely for Environment Bay of Plenty for the purposes of providing a review and analysis of the internal overhead and engineering costs which have been charged to Rivers and Drainage Targeted ratepayers.

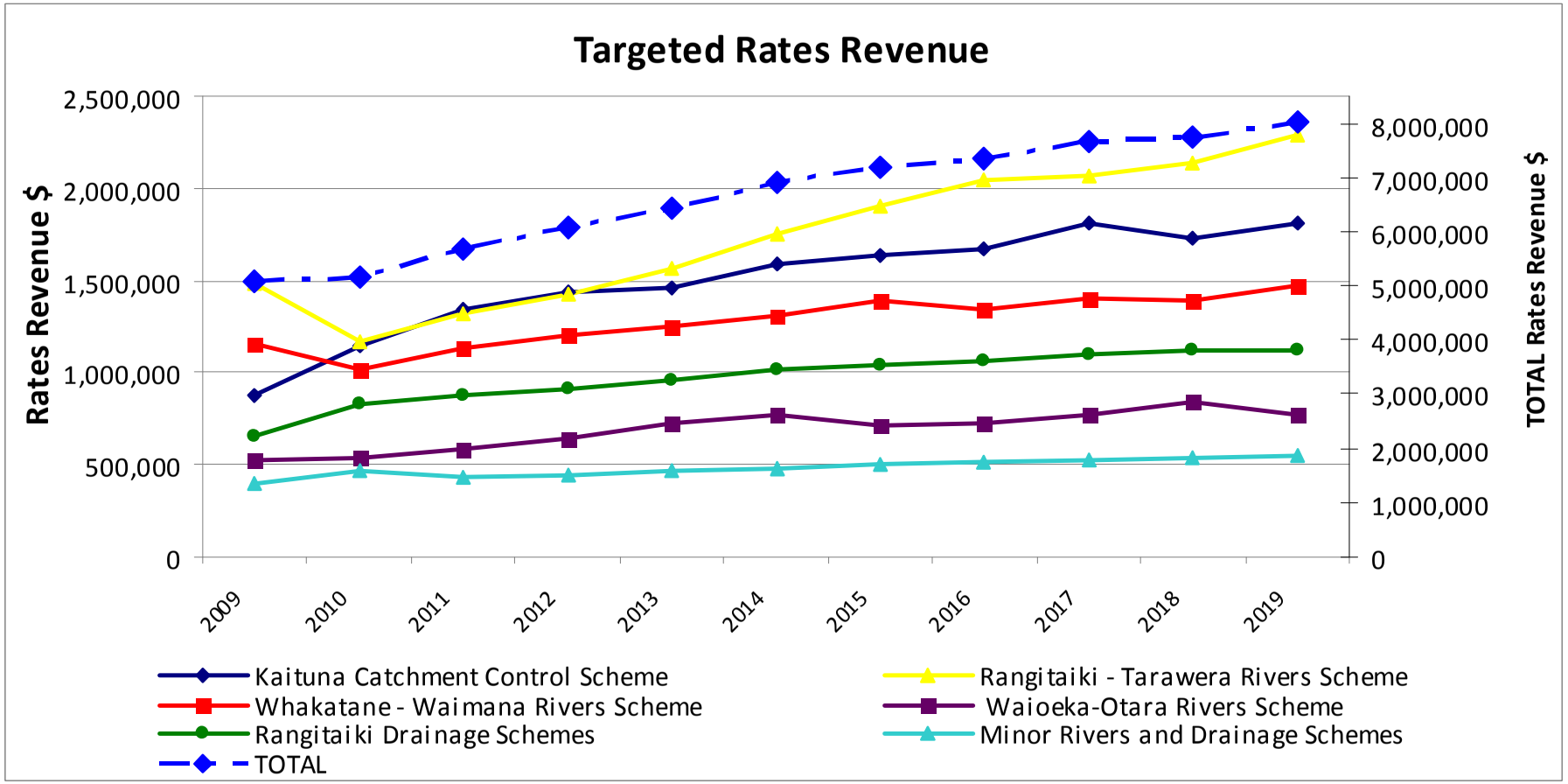
It may be relied on solely by Environment Bay of Plenty for that purpose only. We do not accept or assume any responsibility to any person other than Environment Bay of Plenty in relation to the statements, opinions or views expressed or implied in this Report.

This Report may not, in whole or in part, be disclosed to any other person without the prior written consent of Deloitte.

3. Background

In the 2009 – 2019 Ten Year Plan (TYP), Rivers and Drainage Scheme targeted rates will increase in most schemes in comparison to the 2008 / 2009 rates.

The below graph and table show the movements between years in targeted rates at an individual scheme level as well as at total Rivers and Drainage Scheme level.



		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Kaituna Catchment Control Scheme	Targeted Rates	880,100	1,150,232	1,347,793	1,437,470	1,460,870	1,584,181	1,634,357	1,673,870	1,808,072	1,730,937	1,810,055
increase on previous year			*31%*	*17%*	*7%*	*2%*	*8%*	*3%*	*2%*	*8%*	*-4%*	*5%*
Rangitaiki - Tarawera Rivers Scheme	Targeted Rates	1,484,600	1,170,259	1,315,351	1,419,844	1,570,989	1,751,238	1,901,480	2,039,187	2,070,205	2,132,079	2,284,172
increase on previous year			*-21%*	*12%*	*8%*	*11%*	*11%*	*9%*	*7%*	*2%*	*3%*	*7%*
Whakatane - Waimana Rivers Scheme	Targeted Rates	1,152,200	1,015,690	1,130,904	1,208,899	1,247,492	1,310,753	1,388,649	1,346,339	1,400,498	1,390,647	1,469,748
increase on previous year			*-12%*	*11%*	*7%*	*3%*	*5%*	*6%*	*-3%*	*4%*	*-1%*	*6%*
Waioeka-Otara Rivers Scheme	Targeted Rates	523,300	537,992	589,539	637,560	718,569	766,624	710,007	720,418	772,998	841,726	769,934
increase on previous year			*3%*	*10%*	*8%*	*13%*	*7%*	*-7%*	*1%*	*7%*	*9%*	*-9%*
Rangitaiki Drainage Schemes	Targeted Rates	651,200	825,922	879,614	912,171	963,489	1,015,326	1,042,446	1,059,571	1,100,805	1,127,330	1,126,221
increase on previous year			*27%*	*7%*	*4%*	*6%*	*5%*	*3%*	*2%*	*4%*	*2%*	*0%*
Minor Rivers and Drainage Schemes	Targeted Rates	393,900	467,068	429,806	448,207	465,754	482,111	497,449	509,665	524,791	538,759	554,006
increase on previous year			*19%*	*-8%*	*4%*	*4%*	*4%*	*3%*	*2%*	*3%*	*3%*	*3%*
TOTAL	**Targeted Rates**	**5,085,300**	**5,167,162**	**5,693,007**	**6,064,151**	**6,427,163**	**6,910,233**	**7,174,389**	**7,349,050**	**7,677,369**	**7,761,479**	**8,014,136**
increase on previous year			***2%***	***10%***	***7%***	***6%***	***8%***	***4%***	***2%***	***4%***	***1%***	***3%***

While overall the annual movement in targeted rates from 2009 to 2010 is minimal (2% or $81k), the wider variations in the categories of the reserves have prompted EBOP to investigate why these have occurred. For instance Rangitaki-Tarawera's targeted rates decreased by $314k (21%), Kaituna's targeted rates increased $270k (31%), Rangitaiki Drainage targeted rates increased $174k (27%). At the total Rivers and Drainage level, OPEX costs have increased significantly from 2009 to 2010 (24%) and all schemes OPEX costs have increased between 2009 and 2010. Scheme costs are funded 80% by targeted rates, and 20% by general rates. Therefore the correlation between targeted rates and OPEX costs movements.

In order to understand these changes to targeted rates it is appropriate to look at the variances at a summarised line level (please see the following table). This analysis highlighted the following areas with variances which will be further explained in detail later in the document:

- Total OPEX is forecast to rise significantly in 2010, 2012 and in 2017.
- These OPEX increases have not been fully passed onto targeted ratepayers as there has been a large amount of public funding received in 2010 – 2014 which has counteracted the OPEX increases, hence why the targeted rate increase in 2010 is only 2%.
- OPEX excluding depreciation and interest has increased significantly between 2009 and 2010, yet this has been somewhat masked at a total OPEX level (i.e. Total OPEX increase is 9%) because interest costs have almost halved between 2009 and 2010.

TOTAL RIVERS AND DRAINAGE GROUP	ANNUAL PLAN 2009	NEW TEN YEAR PLAN 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Investment Income	1,679,158	1,489,846	1,527,231	1,532,307	1,615,725	1,641,451	1,692,824	1,746,873	1,766,306	1,831,637	1,889,971
Fees and Charges	88,900	301,540	309,737	315,670	321,977	327,651	333,748	340,220	346,851	353,908	361,413
Other Public Funding and interest on reserves	19,572	2,827,813	1,492,318	1,154,907	1,142,345	865,564	82,184	97,791	114,218	105,691	131,853
General Rates	913,680	760,181	828,477	884,985	1,054,142	1,210,578	1,359,855	1,560,471	1,699,426	1,816,439	1,925,385
		-17%	*9%*	*7%*	*19%*	*15%*	*12%*	*15%*	*9%*	*7%*	*6%*
Targeted Rates	5,085,300	5,167,162	5,693,007	6,064,151	6,427,163	6,910,233	7,174,389	7,349,050	7,677,369	7,761,479	8,014,136
		2%	*10%*	*7%*	*6%*	*8%*	*4%*	*2%*	*4%*	*1%*	*3%*
TOTAL INCOME	**7,786,610**	**10,546,542**	**9,850,770**	**9,952,020**	**10,561,353**	**10,955,477**	**10,643,001**	**11,094,405**	**11,604,170**	**11,869,154**	**12,322,758**
OPERATING EXPENDITURE											
Depreciation	728,814	773,558	844,764	874,809	906,180	965,753	996,605	1,021,529	1,045,692	1,068,740	1,092,669
		6%	*9%*	*4%*	*4%*	*7%*	*3%*	*3%*	*2%*	*2%*	*2%*
Interest on Internal Loans	1,271,654	692,836	1,099,217	1,157,619	1,299,209	1,504,569	1,554,100	1,560,097	1,560,246	1,523,711	1,467,810
		-46%	*59%*	*5%*	*12%*	*16%*	*3%*	*0%*	*0%*	*-2%*	*-4%*
OPEX	4,879,374	6,028,468	6,301,487	7,892,262	6,892,540	7,198,639	7,415,948	7,609,197	8,734,527	8,336,476	8,718,530
		24%	*5%*	*25%*	*-13%*	*4%*	*3%*	*3%*	*15%*	*-5%*	*5%*
TOTAL OPEX	**6,879,842**	**7,494,861**	**8,245,469**	**9,924,690**	**9,097,929**	**9,668,961**	**9,966,653**	**10,190,823**	**11,340,465**	**10,928,927**	**11,279,009**
		9%	*10%*	*20%*	*-8%*	*6%*	*3%*	*2%*	*11%*	*-4%*	*3%*

The analysis of these variances is provided in section 4 of this report

3.1. Council Wide System Changes

To give context to why there have been changes between 2009 and the new TYP we need to firstly explain the recent changes to the EBOP systems. Within the last year EBOP has changed both the budgeting system used to develop the LTCCP as well the overhead allocation model used to allocate corporate costs to each EBOP activity Group and individual river schemes within the Rivers and Drainage Group. Both of these changes have had significant impact on Rivers and Drainage budgeted costs in the new TYP. At a high level the impact has been to increase targeted rates due to:

- An increase in indirect costs now being funded from targeted rates rather than the general rates for the likes of scheme related projects and investigations.

- An increase in corporate costs as the cost drivers have been changed under the new overhead cost allocation methodology.

3.2. Cost Allocation Methodology

There are two categories of costs that are allocated to Rivers and Drainage Group and then within Rivers and Drainage the costs are then allocated to the individual schemes. These are:

- Corporate Support Cost
- Engineering Cost

In order to understand these costs it is necessary to firstly understand how these costs have been previously allocated compared to how the costs are now allocated under the new TYP.

3.2.1. As per 2008 / 2009 Budget

Corporate Support Cost

Previously corporate support costs were allocated to the Rivers and Drainage Scheme (and the 5 schemes within) using an "on-cost" formula based on the quantum of salaries and wages incurred within the Scheme.

In the 2009 budget the "on-cost" portion was charged to the Scheme (and the 5 schemes within) by applying the following percentages to raw salaries and wages:

- Salaries – for each $1 of salary $1.12 of "on-cost" was charged (112%)
- Wages – for each $1 of wages $0.60 of "on-cost" was charged (60%)

The "on-cost" portion charged was to cover the following corporate costs:

2008/2009 On-cost proportions	
Finance & Reporting	11.31%
Overheads	6.69%
Overheads - Employment Costs	29.32%
Human Resources	9.78%
Information Services	-0.54%
Information Technology	1.13%
Office Services	20.24%
Land & Buildings	17.14%
Vehicles	2.90%
Furniture & Fittings	2.45%
Plant & Equipment	-0.41%
Total on-cost	**100.00%**

Engineering Cost

Engineering costs were previously coded to the various engineering codes (project related and general engineering and design) and then only certain activities were recovered from the schemes, please see Appendix 2 for a list of which activities were recovered at what proportion in 2009.

Historically the amount of recovery from each scheme was based on what was viewed as fair and reasonable by Rivers and Drainage Management. In 2009, the individual schemes were allocated engineering costs as follows:

Type of Engineering Cost	Kaituna	Rangitaiki-Tarawera	Whakatane-Waimana	Waioeka-Otara	Rangitaiki Drainage	TOTAL
Engineering General Support	28%	21%	22%	22%	7%	100%
Project Related Engineering Charges	49%	13%	6%	32%		100%

3.2.2. As per New TYP

As a result of the new budgeting system and cost allocation model being used for the new TYP the following costs are now allocated differently.

Corporate Support Cost

Corporate Support cost is now allocated based on drivers that have been determined by new Service Level Agreements (SLA's) which have been drafted but not yet signed off. Under the new budgeting and reporting system the Corporate Overhead Services are now allocated based on the following key drivers:

Corporate Support Services	**Key Drivers**
Support Services: Support Services Charges Communication Costs Word Processing Costs Records Costs Library Costs	Predominantly by staff numbers
Human Resources	Predominantly by staff numbers
Finance and Reporting	Transaction volumes and management accounting time allocated to each section
Information Services: Geospatial Costs Application Development Business Solutions Data and Systems Costs	 By staff numbers and usage levels By staff numbers and usage levels By staff numbers Number of workstations
Information Technology: Network and Telecoms Desktop Services	Number of workstations

Plant, Property and Procurement	
Plant & Equipment Costs	Mostly based on usage
Vehicle Special Charges	Mostly based on usage
Land and Building Costs	M2 occupancy
Furniture and Fittings Costs	M2 occupancy
Property and Procurement Costs	Staff numbers
Procurement Costs	Staff numbers

In the new TYP the above corporate costs (excluding some that are directly allocated to the schemes in the first instance, i.e. Plant and Equipment costs and Support Services Charges) are all allocated to Management accounts in the first instance.

The Management accounts for Rivers and Drainage are:

700 – Rivers Schemes Operational Management
701 – Rivers and Drainage Group Management

The Management accounts are then cleared out and allocated to each of the schemes and other engineering programmes based on the quantum of direct salaries and wages cost that staff have spent on each scheme or engineering activity. In effect this means that the new overhead allocation methodology that has been used to allocate corporate overheads has been applied in the first instance to the Management Accounts but from there a different allocation methodology (based on proportion of staff time spent on each scheme) has been applied to allocate those costs to the individual Schemes.

We were told that it was the intention of the Finance Team that the Management Accounts would only contain the following costs: Salaries, wages, employment costs, building and furniture / fitting costs. All other corporate costs would be allocated as far down the hierarchy as possible (i.e. to scheme level) based on appropriate drivers. We have had confirmation from the Finance Team that this did not happen as planned.

Engineering Cost

Engineering costs are still coded to the various engineering codes (project related and general engineering and design etc) and then certain activities are recovered from the schemes. In essence this hasn't changed, however in the new TYP there is a greater recovery from the schemes than historically, please see Appendix 2 for a list of which activities have been recovered from the schemes and at what proportion.

For example, the engineering code Asset Management Plans was not previously 100% allocated to the schemes whereas now it is, and Floodplain Management Strategies costs were not previously allocated to the schemes and now they are 50% allocated. Also, previously the costs associated with providing Flood Warnings were mostly general funded (only the flood forecast modelling was 50% allocated to the schemes), yet in the new TYP it is proposed that all these costs are funded 50% by the schemes.

	Kaituna	Rangitaiki-Tarawera	Whakatane-Waimana	Waioeka-Otara	Rangitaiki Drainage	TOTAL
% of Cost charged to Scheme						
3918 - 782 Engineering Flood Warning Mgmt	12.5%	12.5%	12.5%	12.5%		50%
3919 - 783 Engineering Survey Programmes	25%	25%	25%	25%		100%
3920 - 784 Asset Management Plans	33%	17%	17%	17%	17%	100%
3921 - 785 Flood Plain Management Strategies	10%	40%				50%

3.2.3. Impact of Changed Allocation Methods

The analysis in section 4 of the report shows the quantum of the increases that have arisen due to the changed allocation methods.

The changes to the allocation bases that Council have implemented have had a significant impact on the quantum of both corporate support costs and engineering costs charged to the schemes. The changes that we disagree with are listed below.

- Each staff member attracts the same proportion of overhead cost irrespective of whether they are a salary or wage earner. Previously the salary staff were allocated a larger proportion of overhead cost than wage staff in recognition that generally the wage staff placed less of a demand on a number of corporate support services as they tended to be more field based and this was appropriate for Rivers and Drainage staff.

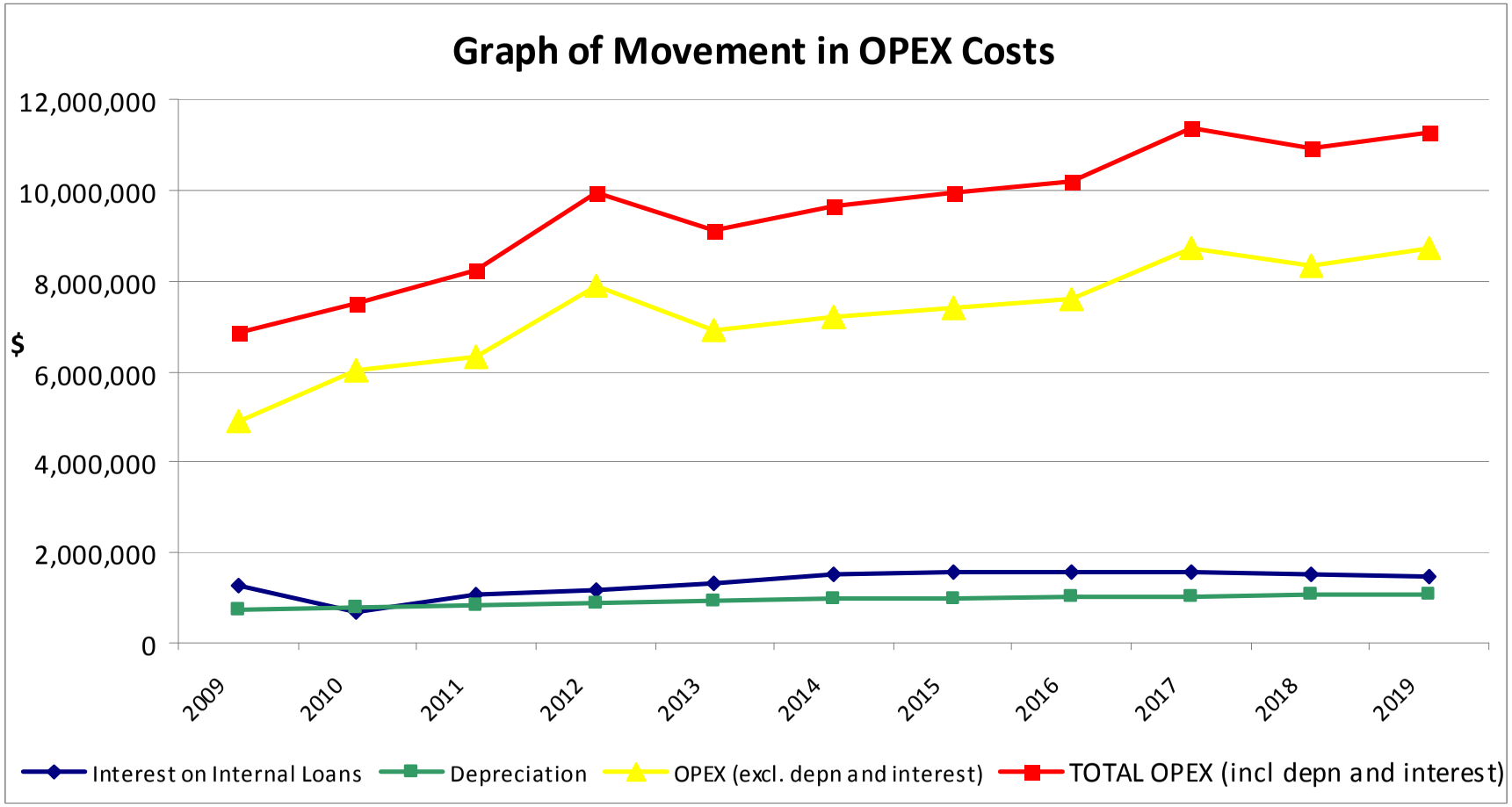
- The new allocation methodology applies different drivers to different costs and in many instances the new driver is staff numbers which has meant a significant increase in cost to the Rivers and Drainage Group. This is because Rivers and Drainage has a high headcount but lower than average salary level than other activity areas within Council. The average salary across Council, excluding Rivers and Drainage is $65k, yet the average Rivers and Drainage salary is $53k (18.4% less). Previously, corporate overheads were allocated based on the quantum of salary and wage dollars which meant that due to Rivers and Drainage staff having lower than average salaries, they attracted a smaller proportion of cost.
- The change in the allocation approach has resulted in some IS cost being recovered by way of special charge which is directly recoverable from users (eg. based on which groups have software licences) and the remainder of IS costs are being recovered based on a mixture of headcount and usage which has lead to a higher cost being allocated to Rivers and Drainage whereas previously Information Services costs were predominately specifically allocated to the Group or Groups that used the service and as a result there was not much cost left to recover through the use of the "on-cost" recovery.
- In the new TYP it is proposed that more engineering cost be recovered from the individual schemes for the engineering related activities such as Floodplain Management and Asset Management Plans. These costs were previously predominantly funded through general rates.

3.2.4. Service Level Agreements

In our experience many local authorities experience difficulties in implementing cost allocation systems. The move by Council to introduce service level agreements as the basis for making fully absorbed overhead cost allocations is a step in the right direction and in accordance with recommended practice and should , if implemented appropriately, result in a more accurate allocation of overhead costs than occurred under the previous "on cost" regime that Council used.

4. Analysis of Costs

In order to understand why the total targeted rates has increased in the new TYP and why there have been movements between the different schemes it is relevant to firstly understand which cost categories have changed between the 2009 Annual Plan and the new TYP. Please see the below high level analysis which shows how costs have changed:



OPERATING EXPENDITURE	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Depreciation	728,814	773,558	844,764	874,809	906,180	965,753	996,605	1,021,529	1,045,692	1,068,740	1,092,669
increase on previous year		*6%*	*9%*	*4%*	*4%*	*7%*	*3%*	*3%*	*2%*	*2%*	*2%*
Interest on Internal Loans	1,271,654	692,836	1,099,217	1,157,619	1,299,209	1,504,569	1,554,100	1,560,097	1,560,246	1,523,711	1,467,810
increase on previous year		*-46%*	*59%*	*5%*	*12%*	*16%*	*3%*	*0%*	*0%*	*-2%*	*-4%*
OPEX (excl. depn and interest)	4,879,374	6,028,468	6,301,487	7,892,262	6,892,540	7,198,639	7,415,948	7,609,197	8,734,527	8,336,476	8,718,530
increase on previous year		*24%*	*5%*	*25%*	*-13%*	*4%*	*3%*	*3%*	*15%*	*-5%*	*5%*
TOTAL OPEX (incl depn and interest)	**6,879,842**	**7,494,861**	**8,245,469**	**9,924,690**	**9,097,929**	**9,668,961**	**9,966,653**	**10,190,823**	**11,340,465**	**10,928,927**	**11,279,009**
increase on previous year		***9%***	***10%***	***20%***	***-8%***	***6%***	***3%***	***2%***	***11%***	***-4%***	***3%***

The increase in OPEX between 2009 and 2010 is 24%. The increases in OPEX in 2012 and 2017 can be explained by the forecasting of flood damage events in 2012 of $1,280k and in 2017 of $640k. These events are funded from flood damage reserves and will have no impact on targeted rates.

The OPEX figures would be as below if the two forecast flood damage events were excluded in 2012 and 2017:

OPERATING EXPENDITURE	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
OPEX (excl. depn and interest)	4,879,374	6,028,468	6,301,487	6,612,262	6,892,540	7,198,639	7,415,948	7,609,197	8,094,527	8,336,476	8,718,530
increase on previous year		*24%*	*5%*	*5%*	*4%*	*4%*	*3%*	*3%*	*6%*	*3%*	*5%*
TOTAL OPEX (incl depn and interest)	**6,879,842**	**7,494,861**	**8,245,469**	**8,644,690**	**9,097,929**	**9,668,961**	**9,966,653**	**10,190,823**	**10,700,465**	**10,928,927**	**11,279,009**
increase on previous year		***9%***	***10%***	***5%***	***5%***	***6%***	***3%***	***2%***	***5%***	***2%***	***3%***

The above analysis of OPEX highlights that at a total Rivers and Drainage level (excluding the two forecast flood damage events) the following movements need further explanation:

- A 24% increase in OPEX costs between 2009 and 2010
- A 46% reduction in interest on internal loans between 2009 and 2010,
- A 59% increase in interest on internal loans between 2010 and 2011

4.1. Analysis of OPEX Costs

OPEX costs are broken down into a number of areas and in order to understand what costs have created this 24% increase in 2010 we have prepared the following analysis. Please note that the analysis is applicable to the schemes and excludes the general funded engineering portion of costs which is at the bottom of the table as a one line item.

TOTAL of all SCHEMES OPEX (Excluding General Funded Engineering)	TOTAL 2009	2010	Increase / (Decrease)	%
Direct OPEX	1,732,000	1,693,592	(38,408)	-2%
DIRECT INTERNAL CHARGES				
Staff costs	765,229	860,117	94,888	12%
General Engineering Charges	60,000	39,434	(20,566)	-34%
Special Engineering Project Charges	139,300	456,722	317,422	228%
Total Direct Internal Charges	964,529	1,356,273	391,744	41%
CORPORATE SUPPORT CHARGES				
Plant and Vehicles	312,331	447,675	135,344	43%
Property	100,073	38,412	(61,661)	-62%
EDS Charges	27,700	111,685	83,985	303%
Finance and Reporting Costs	57,761	109,921	52,161	90%
Office Services	103,401	112,617	9,216	9%
Information Services	23,100	195,154	172,054	745%
Information Technology	56,200	83,325	27,125	48%
Human Resources	49,965	68,495	18,530	37%
Corporate Overhead	34,162	13,065	(21,097)	-62%
Cost of Rating	202,900	220,704	17,804	9%
TFR of corporate support to depn and interest *	(232,770)	0	232,770	-100%
Adjustment GL ledger to LT ledger - general funding	3,547	0	(3,547)	-100%
Total Corporate Support Charges	738,368	1,401,053	662,685	90%
TOTAL SCHEME OPEX	**3,434,898**	**4,450,918**	1,016,021	30%
NET Engineering OPEX (after Scheme Recoveries) **	1,444,476	1,577,550	133,074	9%
	4,879,374	**6,028,468**	1,149,094	24%

* As advised by Finance – The 2009 transfer of corporate support cost to depreciation and interest is where overhead has been allocated into operating cost class i.e. operating costs, interest, depreciation. To compare the 2009 analysis to the 2010 we do not put the corporate overhead to a

class of costs, they just remain as allocated overhead. To compare like with like it is better to compare costs above this line, but the credit provides the necessary reconciliation

** This portion of engineering cost is funded from general rates

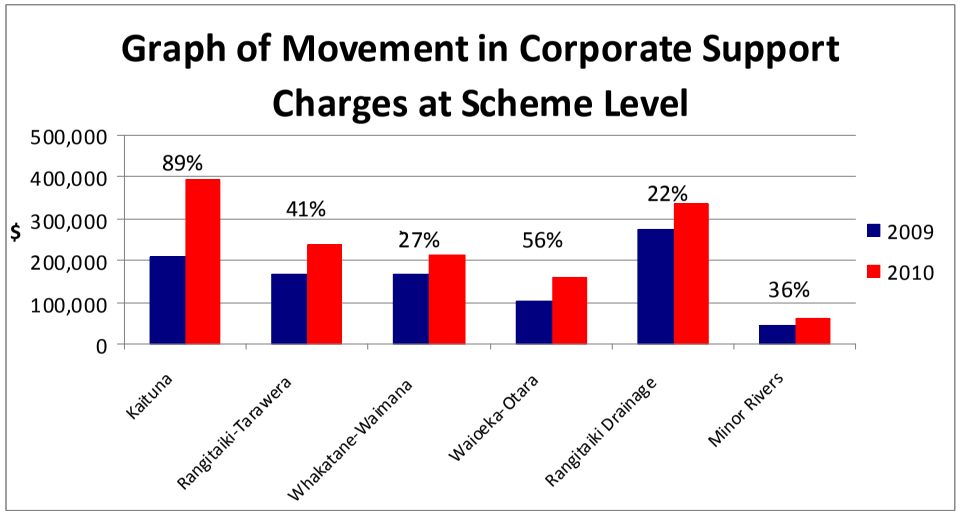
Please see Appendix 1 for this breakdown detailed by Scheme. Please note that we will analyse and comment on the increases to Engineering costs (both the Special Engineering and EDS Charges increase, and the Engineering OPEX increase which is funded from general rates) separately in section 4.3.

4.1.1. Corporate Support Charges

The increase of $663k or 90% of corporate support charges allocated to the schemes between 2009 and 2010 is significant.

Even if the 2009 credit of $232k – Transfer of corporate support to depreciation and interest is excluded, the increase is still significant at around 44% increase between 2009 and 2010.

The below graph shows how the Corporate Support Charges have changed between 2009 and 2010 at an individual scheme level (excluding corporate adjustments made in the 2009 Annual Plan for transfer of corporate support cost to depreciation and interest and adjustment entries between the general ledger and the LTCCP ledger):



The breakdown of these Corporate Support Charges is as follows:

	TOTAL				Kaituna				Rangitaiki-Tarawera				Whakatane-Waimana			
CORPORATE SUPPORT CHARGES	2009	2010	Increase / (Decrease)	%	2009	2010	Increase / (Decrease)	%	2009	2010	Increase / (Decrease)	%	2009	2010	Increase / (Decrease)	%
Plant and Vehicles	312,331	447,675	135,344	43%	57,066	143,171	86,105	151%	46,874	47,138	264	1%	34,186	52,414	18,228	53%
Property	100,073	38,412	(61,661)	-62%	21,742	9,656	(12,086)	-56%	14,729	5,881	(8,848)	-60%	17,186	6,835	(10,351)	-60%
EDS Charges	27,700	111,685	83,985	303%	14,100	49,638	35,538	252%	7,600	37,228	29,628	390%	3,000	12,409	9,409	314%
Finance and Reporting Costs	57,761	109,921	52,161	90%	12,549	24,047	11,498	92%	8,501	13,429	4,928	58%	9,919	16,113	6,193	62%
Office Services	103,401	112,617	9,216	9%	22,465	30,104	7,638	34%	15,218	16,721	1,502	10%	17,757	19,498	1,741	10%
Information Services	23,100	195,154	172,054	745%	3,000	49,079	46,079	1536%	2,700	28,371	25,671	951%	11,700	33,604	21,904	187%
Information Technology	56,200	83,325	27,125	48%	17,600	20,941	3,341	19%	11,700	13,139	1,439	12%	2,700	15,110	12,410	460%
Human Resources	49,965	68,495	18,530	37%	10,856	17,230	6,374	59%	7,354	9,660	2,306	31%	8,581	11,573	2,992	35%
Corporate Overhead	34,162	13,065	(21,097)	-62%	7,422	3,286	(4,136)	-56%	5,028	1,840	(3,188)	-63%	5,867	2,206	(3,661)	-62%
Cost of Rating	202,900	220,703	17,803	9%	42,300	48,075	5,775	14%	48,100	63,089	14,989	31%	57,000	42,805	(14,195)	-25%
Total Corporate Support Charges (excluding corporate adjust)	**967,592**	**1,401,052**	**433,461**	**45%**	**209,101**	**395,227**	**186,126**	**89%**	**167,804**	**236,496**	**68,693**	**41%**	**167,895**	**212,566**	**44,671**	**27%**

	Waioeka-Otara				Rangitaiki Drainage				Minor Rivers			
CORPORATE SUPPORT CHARGES	2009	2010	Increase / (Decrease)	%	2009	2010	Increase / (Decrease)	%	2009	2010	Increase / (Decrease)	%
Plant and Vehicles	16,627	43,599	26,972	162%	147,899	154,419	6,521	4%	9,679	6,934	(2,745)	-28%
Property	15,934	5,241	(10,694)	-67%	22,787	9,546	(13,241)	-58%	7,695	1,254	(6,442)	-84%
EDS Charges	3,000	12,409	9,409	314%	0	0	0	0%	0	0	0	
Finance and Reporting Costs	9,197	11,630	2,433	26%	13,152	26,848	13,696	104%	4,442	17,854	13,412	302%
Office Services	16,464	14,858	(1,606)	-10%	23,545	27,788	4,243	18%	7,951	3,649	(4,302)	-54%
Information Services	2,400	24,862	22,462	936%	2,700	52,362	49,662	1839%	600	6,877	6,277	1046%
Information Technology	11,300	11,816	516	5%	11,700	19,728	8,028	69%	1,200	2,591	1,391	116%
Human Resources	7,956	8,377	421	5%	11,377	19,142	7,765	68%	3,842	2,514	(1,328)	-35%
Corporate Overhead	5,439	1,595	(3,844)	-71%	7,779	3,657	(4,122)	-53%	2,627	480	(2,147)	-82%
Cost of Rating	14,100	25,236	11,136	79%	34,400	22,201	(12,199)	-35%	7,000	19,298	12,298	176%
Total Corporate Support Charges (excluding corporate adjust)	**102,418**	**159,622**	**57,204**	**56%**	**275,338**	**335,690**	**60,352**	**22%**	**45,036**	**61,451**	**16,415**	**36%**

The analysis of and possible explanation for these cost increases and cost movements between schemes are as follows:

Information Services

Information Services – The main area where corporate support cost has significantly increased is Information Services (IS). At a total Group level the increase is $172k (745%) and is because IS cost is now allocated based on head count in the first instance and then adjusted to take account of usage. Previously IS cost was only allocated to the schemes if it could be directly related to the Rivers and Drainage Group.

The new allocation methods that have been applied to information services costs are as follows:

- Business Solutions Costs – these are allocated based on head count only.
- Application Development Costs – these are allocated based on head count which is then adjusted to take into account if the users are a HIGH user (allocated 50% of cost) / MEDIUM user (allocated 35% of cost) / LOW user (allocated 15% of cost).
- Geospatial Costs – these are allocated based on head count which is then adjusted to take into account if the users are a HIGH user (allocated 50% of cost) / MEDIUM user (allocated 35% of cost) / LOW user (allocated 15% of cost).

At an individual scheme level the increase in the above IS cost of $172k has contributed to a significant increase in cost to the Kaituna scheme of $46k (1536%) because cost is allocated from Rivers and Drainage to the schemes according to the percentage of overall time spent by Rivers and Drainage Staff on each scheme. As Kaituna is the second largest user of Rivers and Drainage staff time it is allocated a larger portion of the IS cost.

Finance and Reporting

These costs have increased at a total Group level by $52k (90%) as now these costs are recovered from the Rivers and Drainage Group based on transaction volumes whereas previously they were recovered based on the "on-cost" methodology. Transaction volumes appear to be a fair allocation basis so this increase appears justifiable.

The cost that is allocated within Rivers and Drainage Group to the scheme is then based on percentage time spent by Rivers and Drainage Staff on each scheme. Hence why Kaituna and Rangitaiki Drainage now have the largest portion of Finance and Reporting cost.

Plant and Vehicle Costs

Plant and Vehicle costs have increased at a total scheme level by $135,344 (43%) and Kaituna Scheme has seen the largest portion of this increase of $86,105 (151%).

The allocation of plant and equipment cost has changed from 2009, and under the new TYP, all pieces of plant and equipment (including vehicles) are costed and then the cost is allocated to each Scheme based on the proposed usage split. We believe this is reasonable, particularly as most pieces of plant and equipment within Rivers and Drainage Group are used solely by the Group and not by other Groups within Council. For example the Hyundai Digger and Weed Cutter Boat are now allocated 50% to Kaituna and 50% to Rangitaiki Drainage.

EBOP has a policy of maximising the use of local contractors for River and Drainage operations with the exception being specialised plant such as the Weed Cutter Boat and Hyundai Digger. When the digger was replaced last year a comprehensive evaluation was undertaken which concluded that continued ownership of this plant item was justified. This evaluation is in compliance with the good practice guidelines for Public Sector entities published by the Office of the Auditor General.

We have not compared the allocation splits for each piece of plant between 2009 and 2010 (and have been told this would be difficult to do) but we would suggest that if the 2010 usage splits are correct then the direct Plant and Equipment cost allocated to each Scheme is reasonable.

Additional to the direct plant and equipment and vehicle cost being allocated to the schemes as above, there is a portion of indirect cost which is also allocated to the schemes. In 2010 indirect plant and equipment cost of $96,967 and indirect vehicle cost of $13,302 has been allocated to the schemes. We have been advised that this cost has been allocated to Rivers and Drainage based on the same proportions as direct plant and equipment and vehicle cost (i.e. expected usage).

Based on our analysis it appears that the split of cost between indirect and direct is as follows:

- Plant and Equipment – Total plant and equipment cost allocated to schemes = $260k (Direct = $163k (63%) / Indirect = $97k (37%))
- Vehicles – Total Vehicle Cost allocated to Rivers and Drainage Operations Management = $249k (Direct = $235k (95%) / Indirect = 13k (5%)). Please note that not all of this vehicle cost is allocated to the schemes, some is allocated to the Engineering Department and covered by general rates.

We have been unable to get a satisfactory explanation as to why the indirect portion is so large (37%) in comparison to the direct portion for Plant and Equipment.

EDS Charges

Total Scheme EDS Charges have increased by $84k or 303% between 2009 and 2010. We know that the Rivers and Drainage Group has been allocated 9% of the overall EDS EBOP charges, and the allocation of this 9% to the individual schemes has changed as below:

Portion of EDS Cost Charged to Schemes	2009	2010	Increase / (Decrease)
Kaituna	51%	44%	-6%
Rangitaiki-Tarawera	27%	33%	6%
Whakatane-Waimana	11%	11%	0%
Waioeka-Otara	11%	11%	0%
Rangitaiki Drainage	0%	0%	0%
Minor Rivers	0%	0%	0%
	100%	100%	

We have not been able to comment on whether the 9% that is allocated in 2010 to Rivers and Drainage is higher or lower than allocated in 2009. However, we would suggest that if the Rivers and Drainage Group are happy that Rangitaiki-Tarawera should be allocated 6% more in 2010 and Kaituna 6% less, then the above allocations are reasonable.

Cost of Rating

Costs of rating – the cost of rating has increased at a total level by 9% and then within the individual schemes it has changed by varying proportions between 2009 and 2010, with some schemes seeing an increase e.g. Minor Rivers increased by 176%, and others seeing a decrease, eg. Rangitaiki Drainage decreased by 35%.

We have been advised by the Finance Team that there is a $7k charge in Minor Rivers which is an error and will be excluded in the next version of the TYP. This will significantly decrease the 176% increase that Minor Rivers has seen in 2010.

Other Corporate Support Charges

The following corporate support charges (not discussed above) allocated to Rivers and Drainage have all increased in 2010 under the new overhead allocation methodology and we will comment on the reasonableness of this in section 4.4.1:

- Office Services
- Information Technology
- Human Resources

With regard to the allocations from the Rivers and Drainage Group to the individual schemes, in 2009 the allocation to the schemes was based on the same “on-cost” proportion across the board effectively meaning those schemes with higher salary and wages got a higher proportion of the overhead costs. This hasn’t changed for the following corporate support charges in 2010, as in the new TYP they are allocated to the schemes based on the percentage of time spent by Rivers and Drainage Staff on each scheme. Hence why Kaituna and Rangitaiki Drainage now have a larger portion of the following costs:

- Finance and Reporting
- Office Services
- Information Technology
- Human Resources

4.2. Analysis of Interest on Internal Loans Cost

OPERATING EXPENDITURE	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Interest on Internal Loans	1,271,654	692,836	1,099,217	1,157,619	1,299,209	1,504,569	1,554,100	1,560,097	1,560,246	1,523,711	1,467,810
increase on previous year		*-46%*	*59%*	*5%*	*12%*	*16%*	*3%*	*0%*	*0%*	*-2%*	*-4%*

We understand that the internal rate of interest used in 2010 is 4.5% which is almost half that of 2009 (8.5%). The impact of this has been to almost half interest cost in 2010 and has had the impact of cushioning other OPEX cost increases in 2010.

From 2011 onwards interest cost is higher due to a forecast increase in the internal interest rate to 6.75% as well as additional drawdown of loans for capital purchases.

4.3. Analysis of Engineering Costs

Engineering costs that have been recovered from the schemes have increased significantly by $297k between 2009 and 2010 as below:

Engineering Charges	**2009**	**2010**	***Increase / (Decrease)***	***%***
General Engineering Charges	60,000	39,434	*(20,566)*	*-34%*
Special Engineering Project Charges	139,300	456,722	*317,422*	*228%*
Total Engineering Charges	199,300	496,156	*296,856*	*149%*

Additionally the net OPEX position (i.e. total engineering costs less recoveries) for the engineering Group has increased by $133k.

NET Engineering OPEX (after Scheme Recoveries)	1,444,476	1,577,550	*133,074*	*9%*

The overall impact of the above at Scheme level and Engineering Group level has effectively equated to a total cost increases of $430k between 2009 and 2010 new TYP.

The $133k increase at Engineering Group level is being funded by general funding (mainly through additional fees and charges income of $220k in 2010) and the $381k is being funded by targeted ratepayers within the schemes.

The $297k increase in cost being allocated to targeted ratepayers can be explained mostly by the changes in the allocation methods as discussed in section 3.2.2.

- For example, the engineering code Asset Management Plans was not previously 100% allocated to the schemes whereas now it is, and Floodplain Management Strategies costs were not previously allocated to the schemes and now they are 50% allocated. Also, previously the costs associated with providing Flood Warnings were mostly general funded (only the flood forecast modelling was 50% allocated to the schemes), yet in the new TYP all costs are funded 50% by the schemes. The following table shows the impact that these changes in allocations has on each scheme:

	TOTAL		Kaituna		Rangitaiki-Tarawera		Whakatane-Waimana		Waioeka-Otara		Rangitaiki Drainage	
	2009	**2010**	**2009**	**2010**	**2009**	**2010**	**2009**	**2010**	**2009**	**2010**	**2009**	**2010**
3726 - Engineering Charges General Support	**60,000**	**39,434**	16,600	24,008	12,800	5,142	13,300	5,142	13,300	5,142	4,000	-
3918 - 782 Engineering Flood Warning	**-**	**69,464**	-	17,366	-	17,366	-	17,366	-	17,366		
3919 - 783 Engineering Survey Programmes	**-**	**63,600**	-	15,900	-	15,900	-	15,900	-	15,900		
3920 - 784 Asset Management Plans	**-**	**229,819**	-	76,300	-	39,069	-	38,150	-	38,150		38,150
3921 - 785 Flood Plain Management Strategies	**-**	**93,840**	-	18,768	-	75,072	-	-	-	-		
Special Projects Engineering Charges	**139,300**	**-**	68,500	-	18,600	-	8,000	-	44,200	-		
	199,300	**496,157**	**85,100**	**152,342**	**31,400**	**152,549**	**21,300**	**76,558**	**57,500**	**76,558**	**4,000**	**38,150**
$$ Increase		***296,857***		*67,242*		*121,149*		*55,258*		*19,058*		*34,150*
% Increase		*149%*		*79%*		*386%*		*259%*		*33%*		*854%*

The above charges are based on:

1. Firstly, the proportion charged to the schemes as per Appendix 2 (eg. 50% of the Flood Plain Management Strategies cost is allocated to the schemes), then
2. Secondly the below proportions are allocated to each individual scheme (eg. 20% of the Scheme allocated Flood Plain Management Strategies cost is allocated to Kaituna and 80% is allocated to Rangitaiki-Tarawera)

	Kaituna	Rangitaiki-Tarawera	Whakatane-Waimana	Waioeka-Otara	Rangitaiki Drainage	TOTAL
% of Cost charged to Scheme						
3918 - 782 Engineering Flood Warning Mgmt	12.5%	12.5%	12.5%	12.5%		50%
3919 - 783 Engineering Survey Programmes	*25%*	25%	25%	25%		100%
3920 - 784 Asset Management Plans	33%	17%	17%	17%	17%	100%
3921 - 785 Flood Plain Management Strategies	10%	40%				50%

4.4. Reasonableness and Appropriateness of Overhead Allocation Charges

4.4.1. Corporate Support Charges

There are two aspects to consider when commenting on the reasonableness and appropriateness of the overhead allocation charges:

- Whether the allocation to the total Rivers and Drainage Group is reasonable and appropriate i.e. do we agree or disagree with the changes in the cost allocation methodology at the Group level.
- Whether the allocation from Rivers and Drainage Group to the individual schemes is reasonable and appropriate.

Allocating Costs to Rivers and Drainage Group

In the first instance we would question some of the key drivers used to allocate corporate cost to the Rivers and Drainage Group. For some costs head count is not the most appropriate key driver because of the split of staff within Rivers and Drainage. 10 of the 33 Rivers and Drainage Team are waged staff, primarily field based and do not place demand on these services. A further 8 staff spend 80% of their time out in the field and place a minimal demand on these services, yet are charged at a similar rate to those office based staff. For example we believe the allocation of the below costs are questionable:

- Office Services Costs – Based on the SLA's it appears that Office Services costs (including Communication Costs / Records Costs / Library Costs and Word Processing costs) in the new TYP are being allocated to each employee equally across the board. As a result the Rivers and Drainage Group are being allocated cost for these services for each of their staff regardless of whether they are office based or field based and whether or not they would use these services.

- IS Costs – Whilst the method of allocating IS cost based on head count in the first instance then usage may sound reasonable at a Council level, it does not take account of the fact that the Rivers and Drainage Group have a proportion of their staff that either don't place a demand on these services or if they do it is minimal. It is unreasonable to charge all 33 staff of the Rivers and Drainage Team cost for all IS services. We acknowledge that for some of these cost areas adjustments have been made to take account of their usage levels; however, we recommend that field staff have no allocation of IS cost at all and the allocation approach only be applied to staff that make some use of those services.
- Human Resources Costs - In the new TYP these costs are being allocated based on predominantly staff numbers (with recruitment costs based on staff salaries) and we believe this is a reasonable driver.
- Plant and Equipment Costs –Whilst there have been some large variances between the schemes we believe that the treatment of allocating the cost of each piece of plant and equipment to the individual schemes is correct (assuming that the usage assumptions are correct i.e. that the digger and weed cutter boat are used 50% within Kaituna and 50% within Rangitaiki Drainage schemes). However the allocation of Rivers and Drainage indirect plant and equipment cost of $96,967 to the schemes when their direct plant and equipment cost is $163,053, does not appear to be appropriate. The indirect cost allocated to Rivers and Drainage appears to be large in comparison to how much direct cost they have. There should be a further investigation into what encompasses the indirect cost.

Allocating Costs within Rivers and Drainage Group to the Individual Schemes

Generally we would comment that the methodology used within the Rivers and Drainage Group to allocate corporate costs from Group level to each scheme is potentially not the best method available and it would be preferable to try and use the same allocation driver to allocate to the schemes. The different allocation methods applied is one reason why there are differences between the schemes though, i.e. Kaituna OPEX increase 89%, yet Rangitaiki-Drainage OPEX increase only 22%.

For example:

- Finance and Reporting Costs – Whilst the change in allocation at a Group level is reasonable as it is now allocating costs based on transaction volumes and management accounting time spent working at Group level, we would question the appropriateness of allocating these costs to the schemes based on the proportion of time all Rivers and Drainage Group staff spend on scheme work. Effectively this means that those schemes that have a higher input of staff time have a higher cost allocated to them for Finance and Reporting Costs. We would suggest transaction volumes or some approximation of this would be used for the allocation from Rivers and Drainage Group to the schemes than allocating this cost based on staff time spent on each Scheme.

4.4.2. Engineering Costs

Opus have provided a review which has assessed whether they believe it has been appropriate to change the way Project costs have been allocated to the schemes. Please refer to the Opus report, or our combined Summary Report for comments on the appropriateness of these changes to allocations.

There have also been changes to the way each scheme has been allocated the project costs in 2010:

	Kaituna	Rangitaiki-Tarawera	Whakatane-Waimana	Waioeka-Otara	Rangitaiki Drainage	TOTAL
% of Cost charged to Scheme						
3918 - 782 Engineering Flood Warning Mgmt	12.5%	12.5%	12.5%	12.5%		50%
3919 - 783 Engineering Survey Programmes	*25%*	25%	25%	25%		100%
3920 - 784 Asset Management Plans	33%	17%	17%	17%	17%	100%
3921 - 785 Flood Plain Management Strategies	10%	40%				50%

Based on conversations held with Opus and Bruce Crabbe and with reference to the table above the following comments have been made regarding the reasonableness of the allocation of these costs to the schemes:

- 782 – Engineering Flood Warning – Reasonable that each of the 4 schemes are allocated 12.5% each
- 783 - Engineering Survey Programmes – Equal allocation is not reasonable given that each scheme will have a different requirement for survey programmes i.e. the larger schemes will have a higher need than smaller schemes. It is recommended that for budgeting purposes, each scheme be allocated their expected percentage of the total costs based on the number and magnitude of cross sections and long sections. Ultimately, the actual cost for each scheme should be charged to each scheme.
- 784 - Asset Management Plans – The allocation is not reasonable based on the following reasons:
    - Rangitaiki Drainage should not be charged, as we understand that the same ratepayers within Rangitaiki-Tarawera and Whakatane-Waimana are already paying for a share of this cost and
    - Kaituna should not be allocated a disproportionally larger share than the others. This may have been due to Kaituna picking up two shares of the cost – one for Kaituna Upper and one for Kaituna Lower, whereas it should only receive one share. It is recommended that an apportionment of these costs be based on each river scheme's asset value to ensure greater equity.
- 785 - Flood Plain Management Strategies – Until a more transparent cost apportionment is derived, it is not reasonable that the schemes are allocated any of these costs (Based on the Opus review as mentioned above).

5. Recommendations

Based on our review and analysis we make the following recommendations:

- Corporate overheads allocation:
    - Where head count is the primary allocation driver, the overhead allocation methodology should look at the different types of staff within each group first to recognise and exclude those staff that place minimal demand on services.
    - A usage rating (high/med/low) then needs to be applied to those staff that do make some use of the service.
    - The same driver that is used to allocate costs to operational groups should also be used to allocate costs at the scheme level.
- Engineering costs allocation:
    - We do not believe the charging of 50% of FMS cost to individual schemes has been justified. We recommend that until a robust and transparent analysis to define the appropriate cost apportionment is undertaken, the FMS continue to be fully funded from general funds
    - We do not believe allocation to each of the Schemes of both the AMP cost and Engineering Survey Programmes has been justified. For AMPs, Rangitaiki Drainage should not be charged, as we understand that the same ratepayers within Rangitaiki-Tarawera and Whakatane-Waimana are already paying for a share of this cost and Kaituna should not be allocated a disproportionally larger share than the others. Rather an apportionment of these costs should be based on each river scheme's asset value to ensure greater equity. For Engineering Survey Programmes, each scheme should be allocated their expected percentage of the total costs based on the number and magnitude of cross sections and long sections. Ultimately, the actual survey cost for each scheme should be charged to each scheme.
- Plant and Vehicle costs allocation:
    - We believe the decision to own specialised items of plant and equipment is cost effective and justified at a direct cost level. We have been unable to get a satisfactory explanation of what is included in indirect costs, however, in our professional opinion, we believe the amount of interest cost is high
- SLA concept underpinning cost allocation methodology:
    - We concur with the concept of cost allocation based on SLA's but there are still some areas of concern. With regard to the SLA's that have been drafted but not signed off, we recommend that there is more detail provided either within the SLA document or as a

supplementary workpaper that shows the reconciliation between the SLA and the cost allocation table. For example, the SLA Office Services – Records Management and Library Services notes that the allocation driver is staff numbers, however the allocation table itself allocates different proportions of these costs to Rivers and Drainage. If the allocation driver was the same across both we would expect the same proportion to be allocated.

- Operational management of schemes
    - The Rivers and Drainage Group develop additional process maps of their remaining key activities to drive improvements in operational efficiency and ensure effectiveness in achieving levels of service
    - The Rivers and Drainage Group develop a matrix to assess what level (or degree) of checking is required following a capacity review
    - The Rivers and Drainage Group implement a prioritisation process and tools across all the Rivers and Drainage schemes to ensure an effective maintenance and capital works programme is created to support efficient delivery.
    - The Rivers and Drainage Group review how they procure services from contractors
- Ratepayer Representation Model:
    - The existing Liaison Group model be substantially re configured and improved to form a framework for 'River and Drainage Scheme Advisory Groups'
    - A range of improvements be implemented that have the capacity to substantially lift the effectiveness of these groups and to improve the level of engagement with scheme ratepayers. These recommended improvements are as follows:
        - A written terms of reference should be developed and agreed to improve the Liaison Group's role and membership/representation
        - ensure a triennial public meeting to ratify membership is held
        - include volunteer technical appointees and
        - improve the systems of reporting back to the wider ratepayer base based upon web and email

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Appendix 1: Detailed OPEX by Scheme (excluding 2009 Corporate Adjustments)

TOTAL of all SCHEMES OPEX (Excluding General Funded Engineering)	Kaituna				Rangitaiki-Tarawera				Whakatane-Waimana			
	2009	2010	*Increase / (Decrease)*	*%*	2009	2010	*Increase / (Decrease)*	*%*	2009	2010	*Increase / (Decrease)*	*%*
Direct Opex	364,200	330,556	*(33,644)*	*-9%*	447,700	317,460	*(130,240)*	*-29%*	330,600	345,680	*15,080*	*5%*
DIRECT INTERNAL CHARGES												
Staff costs	151,752	202,444	*50,692*	*33%*	114,958	129,074	*14,116*	*12%*	130,993	152,593	*21,600*	*16%*
General Engineering Charges	16,600	24,008	*7,408*	*45%*	12,800	5,142	*(7,658)*	*-60%*	13,300	5,142	*(8,158)*	*-61%*
Special Engineering Project Charges	68,500	128,334	*59,834*	*87%*	18,600	147,407	*128,807*	*693%*	8,000	71,416	*63,416*	*793%*
Total Direct Internal Charges	236,852	354,786	*117,934*	*50%*	146,358	281,623	*135,265*	*92%*	152,293	229,151	*76,858*	*50%*
CORPORATE SUPPORT CHARGES												
Plant and Vehicles	57,066	143,171	*86,105*	*151%*	46,874	47,138	*264*	*1%*	34,186	52,414	*18,228*	*53%*
Property	21,742	9,656	*(12,086)*	*-56%*	14,729	5,881	*(8,848)*	*-60%*	17,186	6,835	*(10,351)*	*-60%*
EDS Charges	14,100	49,638	*35,538*	*252%*	7,600	37,228	*29,628*	*390%*	3,000	12,409	*9,409*	*314%*
Finance and Reporting Costs	12,549	24,047	*11,498*	*92%*	8,501	13,429	*4,928*	*58%*	9,919	16,113	*6,193*	*62%*
Office Services	22,465	30,104	*7,638*	*34%*	15,218	16,721	*1,502*	*10%*	17,757	19,498	*1,741*	*10%*
Information Services	3,000	49,079	*46,079*	*1536%*	2,700	28,371	*25,671*	*951%*	11,700	33,604	*21,904*	*187%*
Information Technology	17,600	20,941	*3,341*	*19%*	11,700	13,139	*1,439*	*12%*	2,700	15,110	*12,410*	*460%*
Human Resources	10,856	17,230	*6,374*	*59%*	7,354	9,660	*2,306*	*31%*	8,581	11,573	*2,992*	*35%*
Corporate Overhead	7,422	3,286	*(4,136)*	*-56%*	5,028	1,840	*(3,188)*	*-63%*	5,867	2,206	*(3,661)*	*-62%*
Cost of Rating	42,300	48,075	*5,775*	*14%*	48,100	63,089	*14,989*	*31%*	57,000	42,805	*(14,195)*	*-25%*
Total Corporate Support Charges	209,101	395,227	*186,126*	*89%*	167,804	236,496	*68,693*	*41%*	167,895	212,566	*44,671*	*27%*
TOTAL SCHEME OPEX	**810,153**	**1,080,569**	*270,416*	*33%*	**761,862**	**835,579**	*73,717*	*10%*	**650,788**	**787,397**	*136,609*	*21%*

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TOTAL of all SCHEMES OPEX (Excluding General Funded Engineering)	Waioeka-Otara				Rangitaiki Drainage				Minor Rivers			
	2009	2010	*Increase / (Decrease)*	*%*	2009	2010	*Increase / (Decrease)*	*%*	2009	2010	*Increase / (Decrease)*	*%*
Direct Opex	161,600	143,255	*(18,345)*	*-11%*	123,700	172,400	*48,700*	*39%*	304,200	384,241	*80,041*	*26%*
DIRECT INTERNAL CHARGES												
Staff costs	114,408	113,730	*(677)*	*-1%*	200,183	231,367	*31,184*	*16%*	52,935	30,908	*(22,027)*	*-42%*
General Engineering Charges	13,300	5,142	*(8,158)*	*-61%*	4,000	0	*(4,000)*	*-100%*	0	0	*(0)*	*-100%*
Special Engineering Project Charges	44,200	71,416	*27,216*	*62%*	0	38,150	*38,150*	*381500000%*	0	0	*(0)*	
Total Direct Internal Charges	171,908	190,288	*18,381*	*11%*	204,183	269,517	*65,334*	*32%*	52,935	30,908	*(22,027)*	*-42%*
CORPORATE SUPPORT CHARGES												
Plant and Vehicles	16,627	43,599	*26,972*	*162%*	147,899	154,419	*6,521*	*4%*	9,679	6,934	*(2,745)*	*-28%*
Property	15,934	5,241	*(10,694)*	*-67%*	22,787	9,546	*(13,241)*	*-58%*	7,695	1,254	*(6,442)*	*-84%*
EDS Charges	3,000	12,409	*9,409*	*314%*	0	0	*0*	*0%*	0	0	*0*	
Finance and Reporting Costs	9,197	11,630	*2,433*	*26%*	13,152	26,848	*13,696*	*104%*	4,442	17,854	*13,412*	*302%*
Office Services	16,464	14,858	*(1,606)*	*-10%*	23,545	27,788	*4,243*	*18%*	7,951	3,649	*(4,302)*	*-54%*
Information Services	2,400	24,862	*22,462*	*936%*	2,700	52,362	*49,662*	*1839%*	600	6,877	*6,277*	*1046%*
Information Technology	11,300	11,816	*516*	*5%*	11,700	19,728	*8,028*	*69%*	1,200	2,591	*1,391*	*116%*
Human Resources	7,956	8,377	*421*	*5%*	11,377	19,142	*7,765*	*68%*	3,842	2,514	*(1,328)*	*-35%*
Corporate Overhead	5,439	1,595	*(3,844)*	*-71%*	7,779	3,657	*(4,122)*	*-53%*	2,627	480	*(2,147)*	*-82%*
Cost of Rating	14,100	25,236	*11,136*	*79%*	34,400	22,201	*(12,199)*	*-35%*	7,000	19,298	*12,298*	*176%*
Total Corporate Support Charges	102,418	159,622	*57,204*	*56%*	275,338	335,690	*60,352*	*22%*	45,036	61,451	*16,415*	*36%*
TOTAL SCHEME OPEX	**435,926**	**493,165**	*57,240*	*13%*	**603,222**	**777,608**	*174,386*	*29%*	**402,171**	**476,600**	*74,429*	*19%*

Appendix 2: Engineering Costs Allocated to Schemes in 2009 and from 2010 onwards

RIVERS and Drainage Group			To Scheme up to 30/06/09	To Scheme from 1/07/09
078	Engineering		See Below	See Below
780	Engineering administration	Admin	0%	0%
		Team, section, group meetings	0%	0%
		project planning	0%	0%
		supervision	0%	0%
		PA's and development planning	0%	0%
		Training	0%	0%
781	Provide Design advisory services	DAC's, Tech Reviews & Plan Submissions already charged to Consents & Planning	0%	0%
		Refer below to advice relating to projects, capital works & AMP's	0%	0%
		Provide general engineering advice as needed	0%	0%
782	Provide flood warnings	flood management	0%	50%
		flood forecast modelling	50%	50%
		flood manual updates	0%	50%
783	Survey Programme	Initial River Scheme Surveys		100%
		LIDAR survey	0%	0
		River Scheme surveys for AMP's	100%	100%
		lake level monitoring	0%	100%
		Gravel management	100%	100%
		Region-wide benchmarks survey	0%	0%
784	Asset Management Plans	Condition assessments	50%	100%
		Stability and/or seepage assessments	100%	100%
		Scheme river inspections	100%	100%
		Asset revaluation	100%	100%
		Capacity reviews (includes modelling of scheme rivers, streams, canals and drains)	25%	100%
		Updating asset management plans	100%	100%
785	Floodplain Management Strategies	Flood Hazard modelling (includes floodplain maps with flood levels and breach scenarios)	0%	50%
		Prepare floodplain management strategies	0%	50%
786	Engineering Projects			
		Natural hazard evaluation	0%	0%
		Carry out small hydrologic/hydraulic projects	0%	0%
		Gravel Mangagement, fluvial processes	0%	0%
		Flood frequency analysis	0%	0%
		Wetland investigations	0%	0%
		Trial River Protection works	0%	0%
		Tsunami studies	0%	0%
		Sea level inundation risk	0%	0%
787	Capital works engineering	Detailed Survey	100%	100%
		Design		
		Contract Admin		
		Construction Supervision		