ALLOCATION OF UNSPENT FUNDS

Redland City Council

18 October 2017

BDO

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1. Executive Summary

Redland City Council ('the Council') has levied certain waterfront properties a specific Special Charge between 2011 and 2017. The charge contributed to a number of reserves held by The Council ('the Reserves'). The Council also contributed to these funds, and other income from other sources also contributed to the Reserves.

The Council has since reviewed and determined that these particular Special Charges should not be levied on the Property Owners. Subsequently, the levies were discontinued in the third quarter of financial year 2016/17. The Reserves funds were frozen after this time, with interest accruing over this period.

BDO has been engaged by the Council to calculate the allocation of unspent funds to the Property Owners and the General Fund in accordance with the scope of work (Section 3 below) and to provide reasonable assurance that the calculations are based on integral data sources.

In determining the allocation of unspent funds, the Council has made a concerted effort to adopt principles and practices which are fair and equitable to all relevant stakeholders.

For the purposes of this report, BDO has carried out calculations based on the information and data provided by the Council in the formats as set out in Section 4.2 below. Testing of controls and/or processes on the various ICT systems and sources of information were not within the scope of BDO's engagement. BDO has, however, made all enquiries and received all the information reasonably necessary to complete this Report. In the course of BDO's enquiries no matters have come to our attention to suggest that the information was not complete, accurate or valid.

A summary of the calculation results is set out in the table below and further details are set out in subsequent sections of this report.

Calculated Amount Available for Allocation

	Aquatic Paradise total	Sovereign Waters total	Raby Bay total	Total
Special Charges	2,099,918.06	125,920.25	10,191,951.69	12,417,790.00
General Fund Contribution	2,092,147.53	241,640.51	3,810,432.62	6,144,220.66
Total Income	**4,192,065.59**	**367,560.76**	**14,002,384.31**	**18,562,010.66**
Total Expenses	2,226,616.46	438,027.03	9,931,959.81	12,596,603.30
Subtotal	**1,965,449.13**	**-70,466.27**	**4,070,424.50**	**5,965,407.36**
Calculation adjustment for years with negative balance (refer to Section 4.3)	1,104,998.53	115,017.71	1,698,711.61	2,918,727.85
Total Amount for Allocation	**3,070,447.66**	**44,551.44**	**5,769,136.11**	**8,884,135.21**

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Allocation Excluding Interest

	Aquatic Paradise total	Sovereign Waters total	Raby Bay total	Total
Allocation to Property Owners (Excl interest)	1,527,043.42	4,473.01	4,496,889.26	6,028,405.69
Allocation to General Fund (Excl interest)	1,543,404.25	40,078.43	1,272,246.85	2,855,729.52
Total Amount for Allocation	**3,070,447.66**	**44,551.44**	**5,769,136.11**	**8,884,135.21**

Allocation to Property Owners Including Interest

	Aquatic Paradise total	Sovereign Waters total	Raby Bay total	Total
Allocation to Property Owners	1,527,043.42	4,473.01	4,496,889.26	6,028,405.69
Interest Accrued and Paid to Property Owners[1]	347,012.10	1,008.76	1,892,098.63	2,240,119.49
Total Allocation to Property Owners	**1,874,055.52**	**5,481.76**	**6,388,987.90**	**8,268,525.18**

[1] This interest has been calculated as accruing since the end of the financial year the particular special charges were paid. The interest has calculated after the final allocation amounts, and is drawn from funds external to the income from special charges in accordance with Council's fair and equitable principles.

2. Background

Redland City Council ('the Council') has levied certain waterfront properties a Special Charge between 2011 and 2017. The charge contributed to a number of reserves held by The Council ('the Reserves'). The Council, through the General Fund, also contributed to these funds, and other income from other sources also contributed to the Reserves.

The properties were in the following areas: Aquatic Paradise (Marina special charge from 2011, other properties from 2013); Raby Bay (special charge from 2011); and Sovereign Waters (special charge from 2013)

The Council has since reviewed and determined that these particular Special Charges should not be levied on the Property Owners. Subsequently, the levies were discontinued in the third quarter of financial year 2016/17. The Reserves funds were frozen after this time, with interest accruing on a daily basis.

The purpose of the Special Charge was to fund capital and operational expenditure for the waterfront, canals and lakes. Only Raby Bay had capital works funded.

A summary of the charges is set out in the table below.

Charge type	Charge type description	Reserve	Levy Start
CA02	Aquatic Paradise Special Charge	Aquatic Paradise Canal Reserve	1 July 2013
CA06	Raby Bay Tidal Works (Non CTS) Special Charge	Raby Bay Canal Reserve	1 July 2011
CA07	Raby Bay Tidal Works (CTS) Special Charge	Raby Bay Canal Reserve	1 July 2011
CA08	Raby Bay Marina Special Charge	Raby Bay Canal Reserve	1 July 2011
CA09	Aquatic Paradise Marina Special Charge	Aquatic Paradise Canal Reserve	1 July 2011
LA01	Sovereign Waters Lake Special Charge	Sovereign Waters Lake Reserve	1 July 2013

2.1. Fair and Equitable Principles

In determining the allocation of unspent funds, the Council's objective has been the adoption of principles and practices which are fair and equitable to all relevant stakeholders (i.e. rate payers who have paid the Special Charges and those who have contributed to the General Fund). The Council has adopted a range of practices including:

- Making reasonable efforts to identify owners who are no longer in residence after having paid special charges. This includes identification of money owed to deceased estates;

- Applying interest rates which are set at a higher rate than the commercial interest rates (using published rates by the Queensland Law Society); and

- Allowing for possible scenarios that result in the allocation + interest being greater than the amount of unspent funds from the special charges paid by property owners.

3. Scope of work

Having regard to the principles of Fairness and Equity as set out in Section 2.1 above, BDO was instructed to calculate the required allocation of unspent funds for every Property Owner who paid the Special Charges ('Eligible Property Owners'). The calculations were to take into account a range of factors including the following:

- Property ownership changes
- The amount paid (rather than levied)
- The Council General Fund contributions into the reserve
- Interest on allocated monies.

For the purposes of this report, BDO has carried out calculations based on the information and data provided by the Council in the formats as set out in Section 4.2 below. Testing of controls and/or processes on the various ICT systems and sources of information were not within the scope of BDO's engagement. BDO has, however, made all enquiries and received all the information reasonably necessary to complete this Report. In the course of BDO's enquiries no matters have come to our attention to suggest that the information was not complete or accurate.

3.1. Instructions and assumptions provided by the Council

BDO have been provided with a set of instructions and assumptions in relation to the calculation of the allocation of unspent funds by the Council. The instructions are set out below.

1. The balance (i.e. income less expenditure) for each location is to be calculated for each financial year since 1st July 2011

2. The income from the special charges is to be based on the amount actually paid by the property owners rather than the amount levied (refer to Section 2.3.1 for further information)

3. The owners are also to receive interest on these allocations. Interest is to be based on the historical default contract rates published by the Queensland Law Society and will accrue daily from the end of each financial year until the 31st of August 2017. This is additional to the allocation funds, and is being paid by council to the ratepayers in the interest of fairness.

Isolating the contribution of the special charges toward expenditure requires calculation of the General Fund contribution of expenses: If the balance for a given year is positive (i.e. expenditure < revenue), the general fund contribution toward the Capital and Operational Expenses is a fixed proportion of 20% or 30%. This contribution is the General Fund Allocation

Isolating the contribution of the special charges toward expenditure requires calculation of the General Fund contribution of expenses: If the balance for a given year is negative (i.e. expenditure > revenue), or the total special charges collected was zero, then the amount to be allocated is nil

If the balance following the General Fund Allocation is greater than the amount collected via special charges, it is to be reduced to the total collected by the special charges and this is the amount to be allocated to the property owners in proportion to the amount paid by each owner

If the balance following the General Fund allocation is less than or equal to the amount collected via special charges, no further adjustment is necessary and this amount is to be allocated to the property owners in proportion to the amount paid by each owner

Any remaining funds after allocation of all special charges will be allocated to the General Fund

3.2. Additional information provided by The Council

In addition to the above, the Council provided the following additional information and instructions to BDO during the engagement:

1. Reconciliation between the levied amounts from the Property and Rating (P&R) system and the budget reserve income statements is not necessary for this calculation.
2. The column listing "Other Income" in the Reserve summary were adjustments, and were to be excluded from the analysis.
3. Budgets were developed for each financial year. In cases where actuals exceeded budget, the excess was absorbed by the General Fund.
4. The expenses paid out from works to be paid for by the Reserves are listed in the FinanceOne ledger. The transfers from the Reserves for payments are also listed.

3.3. Other considerations

The instructions given by the Council to BDO considers unspent funds only and the calculations are based on amounts paid by Property Owners rather than levied. Regardless, analysis of the charges paid and unpaid as set out in the table below illustrates that there is no material difference between paid and unpaid charges.

	Owners	No. charges	Total unpaid	Total paid
Not fully paid	4	13	$6,141.94	$1,709.82
Fully paid	1,588	25,523	0.00	$12,392,854.81
Total	**1,592**	**25,536**	**$6,141.94**	**$12,394,564.63**
% Not fully paid	0.25%	0.05%		0.01%

The benefit periods are annual, due to all charges, budgets and spending being done per financial year.

4. Relevant Information Provided

4.1. Overview of The Council's relevant data systems

Data Systems and Sources   Data Outputs Used

Property and Rating (P&R) System → BI System Custom Queries → Property Ownership Records

BI System Custom Queries → Special Charges Income Records

Property and Rating (P&R) System — Income/Budget → Reserve Account Records (Excel Files)

Finance One System — Expense Records → Reserve Account Records (Excel Files) → Reserve Expenditure

Web Source (External) → Default Interest Rates Record

Budget Decisions (No Data Source) → General Fund Percentages to Operational and Capital Expenditure

4.2. Overview of information provided

A description of the data sources provided is set out in the table below.

Information	Source system(s)/document(s)	Number of files and format provided	Reasonableness Check
A list of all the properties and property owners for properties which have not changed ownership since the start of FYear 2011	Property and Rating system via custom query: Properties_No Change of Ownership_SpecialCharges.xlsx	1 file, excel format	Individual properties checked for continuity of ownership. All charges match to property ownership.
A list of all the properties, property owners and ownership dates for properties which have changed ownership since the start of FYear 2011	Property and Rating system via custom query: Properties_ChangeofOwnership_ SpecialCharges.xlsx Copy of Transfers 2 May to 31 Aug 2017 final.xlsx	2 files, excel format	Individual properties checked for continuity of ownership. All charges match to property ownership.
A list of all the special levies relating to the reserves, the amount levied and the amount received	Property and Rating system via custom query Special Charges_Levies and Balance CA02_06)07_08_LA01 as at 2nd May.xlsx TransactionListingUpdate.xlsx	2 files, excel format	Total of levied amounts equal to those reported from reserve income for special charges as reported in Reserve Reports via FinanceOne.
A full finance list of expenses relating to the reserves, and the reserve movements paying for these expenses	Finance One System XL Custom Report	FinanceOne XLOne Report - Transactions by Job Number.xlsx	Observed manual extraction from system.
An annual summation of the reserve reports for each financial year	Reserve Reports via FinanceOne and custom MSExcel records	• RABY BAY CANAL RESERVE HISTORY detailed.xlsx • AQUATIC PARAIDSE CANAL RESERVE HISTORY detailed.xlsx	Observed copy of working document for reserves. Reserve income totals matches the amount obtained via custom query

		• SOVERIGN LAKE RESERVE HISTORY detailed.xlsx	from Property and Rating system (separate system)
The % of operational and capital expenses funded from the General Fund (i.e. not funded by special charges)	Supplied by Council	Table of percentages for reserve and financial year.	These percentages were adopted in Special Meetings held by the Council. The minutes of these meetings are available for download from the Redland City Council website.
The budget documents for Redland City Council	• 2011_2012_Budget.pdf • 2012_2013_Operational_Plan_and_ Budget_Book.pdf • 2013_2014_Budget_and_Operational_Plan.pdf • 2014_2015_Budget_and_Operational_Plan.pdf • budget_2016_17.pdf • Budget_Book_2015_16_adopted_ version.pdf	Multiple PDF Documents	These reports are available for direct download from the Redland City Council website.
Historical Standard Contract Default Interest Rates (Queensland Law Society)	http://www.qls.com.au/Knowledge_centre/Practising_resources/Interest_rates	Table of rates	Obtained by BDO from Queensland Law Society Webpage.

It is quite common and reasonable to expect some anomalies and inconsistencies in datasets of this size and complexity. A number of minor inconsistencies were identified in one input file (Properties_ChangeofOwnership_ SpecialCharges.xlsx) by BDO. These inconsistencies were corrected by BDO prior to the final allocation analysis.

4.3. Summary of reserves

Below is a summary of the reserves which was derived from merging the tabs marked "reserve movements" from the following files provided by the Council:

- RABY BAY CANAL RESERVE HISTORY detailed.xlsx
- AQUATIC PARAIDSE CANAL RESERVE HISTORY detailed.xlsx
- SOVERIGN LAKE RESERVE HISTORY detailed.xlsx.

The table below sets out the overview of income, expenses and balances for the financial years that the special charges were levied. The final column, "Positive FYear Balance" sets out the financial years with positive balances only, and these funds will be allocated to Council and property owners. Financial years with a negative balance do not require allocation to the General Fund or property owners as per the instructions set out in Section 3.1.

Reserve	Financial year	Special charges (Paid)	General Fund contribution + Other Income[a]	Total income	Total expenses	Fyear balance	Positive Fyear balance
	11/12	20,905.44	545,234.03	**566,139.47**	32,991.22	533,148.25	533,148.25
	12/13	21,846.24	452,367.29	**474,213.53**	59,043.09	415,170.44	415,170.44
	13/14	433,680.40	235,356.45	**669,036.85**	66,911.18	602,125.67	602,125.67
	14/15	586,282.00	311,532.35	**897,814.35**	227,674.97	670,139.38	670,139.38
	15/16	593,706.20	315,048.19	**908,754.39**	58,890.47	849,863.92	849,863.92
	16/17	443,497.78	232,609.22	**676,107.00**	1,781,105.53	-1,104,998.53	0.00
	11/12	0.00	81,123.02	**81,123.02**	44,749.22	36,373.80	36,373.80
	12/13	0.00	69,922.61	**69,922.61**	68,134.98	1,787.63	1,787.63
	13/14	31,821.48	25,700.48	**57,521.96**	81,991.40	-24,469.44	0.00
	14/15	33,455.45	25,391.76	**58,847.21**	52,457.20	6,390.01	6,390.01
	15/16	34,331.52	23,349.25	**57,680.77**	106,942.01	-49,261.24	0.00
	16/17	26,311.80	16,153.39	**42,465.19**	83,752.22	-41,287.03	0.00

Reserve	Financial year	Special charges (Paid)	General Fund contribution + Other Income[a]	Total income	Total expenses	Fyear balance	Positive Fyear balance
Raby Bay Canal Reserve	11/12	1,290,129.80	869,094.80	2,159,224.60	493,300.00	1,665,924.60	1,665,924.60
	12/13	1,343,574.06	599,243.43	1,942,817.49	602,978.20	1,339,839.29	1,339,839.29
	13/14	1,772,880.25	602,914.40	2,375,794.65	870,336.82	1,505,457.83	1,505,457.83
	14/15	2,049,501.63	646,138.35	2,695,639.98	2,079,215.51	616,424.47	616,424.47
	15/16	2,106,851.76	629,770.83	2,736,622.59	4,435,334.20	-1,698,711.61	0.00
	16/17	1,629,014.19	463,270.81	2,092,285.00	1,450,795.08	641,489.92	641,489.92
Total		12,417,790.00	6,144,220.66	18,562,010.66	12,596,603.30	5,965,407.36	8,884,135.21

Note: (a) Other Income include Interest Income and General Rate Income. Refer to Section 5.3.1 for further detail.

(b) Special charges for Sovereign Waters did not commence until financial year 13/14.

5. BDO approach

The BDO Approach can be summarised as the following:

- Data Collation and Database Development
- Data Transformation
- Verification of Each Stage.

5.1. Data Collation and database development

The initial files provided were Microsoft Excel Files. These files often had data split by charges or reserves across multiple tabs. The first stage of data collation involved collating the material into single files or tabs containing the following:

- Data on Property Ownership (for properties with no changes of ownership from 01/07/2011).
- Data on Property Ownership (for properties with changes of ownership from 01/07/2011).
- Record of levies and payments of special charges levied against each property.
- Summary of reserve expenditure.

A custom database was employed for this project. The database design was initially structured around the collated data. As data was transformed, new tables were created to hold this data.

Extract, Transform and Load operations are the operations required to extract data from its initial format and files and load it into the database. The full Extract, Transform and Load operations carried out were as follows:

Input(s)	Operation	Operation type	Output
Council Supplied Files: RABY BAY CANAL RESERVE HISTORY detailed.xlsx AQUATIC PARAIDSE CANAL RESERVE HISTORY detailed.xlsx SOVERIGN LAKE RESERVE HISTORY detailed.xlsx	Merge Tabs "reserve movements" from all 3 files into a single EXCEL file	Manual process	Interim file: Reserve Summary.xlsx
Interim File: Reserve Summary.xlsx	Change dates to ISO format Change numbers to standard format	Manual process	Interim file: Reserve Summary.xlsx
Interim File: Reserve Summary.xlsx	Create database table with identical structure as Excel file tab Populate the data using BCP utility	Automated process	Database table: tblReserveSummary

Input(s)	Operation	Operation type	Output
Council Supplied File Properties_Change of Ownerships_Special Charges.xlsx	Merging all sheet for separate changes into a single tab	Manual process	Council supplied file: Properties_Change of Ownerships_Special Charges.xlsx New Tab - ChangeLogAll
Council Supplied File Properties_Change of Ownerships_Special Charges.xlsx	Merging all sheet for separate changes into a single tab	Manual process	Council supplied file: Properties_Change of Ownerships_Special Charges.xlsx New Tab - ChangedCurrentOwnerAll
Council Supplied File Properties_Change of Ownerships_Special Charges.xlsx Tab ChangeLogAll	Create database table with identical structure as Excel file tab Populate the data using BCP utility	Automated process	Database table: tblChangeLogAll
Council Supplied File Properties_Change of Ownerships_Special Charges.xlsx Tab ChangedCurrentOwnerAll	Create database table with identical structure as Excel file tab Populate the data using BCP utility		New database table: tblChangedIsCurrentOwnerAll
Council Supplied File Properties_No Change of Ownerships_Special Charges.xlsx	Create database table with identical structure as Excel file tab Populate the data using BCP utility	Automated process	Database table: tblNoChangeAll
Council Supplied File Special Charges_Levies and Balance CA02_06_07_08_09_LA01 as at 2 May.xlsx	Create database table with identical structure as Excel file tab Populate the data using BCP utility	Automated process	Database table: tblLeviesAndBalances

5.2. Data transformations

The diagram below shows the overview of the transformation performed. Circles denote data sets, arrow s indicate transformation of those sets to form new data sets. The specific details of the transformations is given in the appendix.

Key:
Red = Original Data Set
Teal = Interim Data Set
Blue = Final Data Set
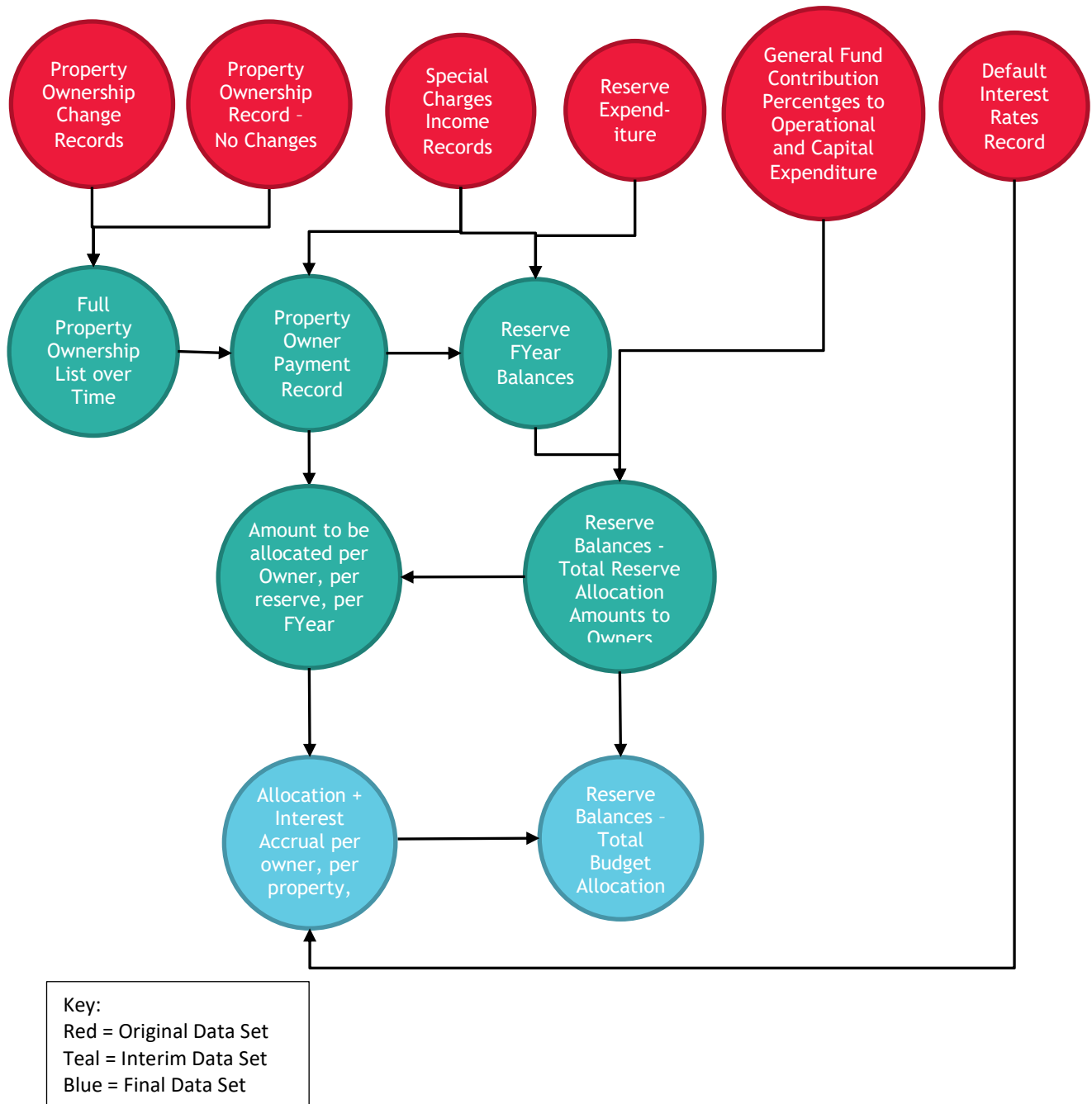
5.3. Calculations Completed by Data Transformation

The necessary calculations to determine the allocations amounts to property owners were performed via the data transformation. The Primary formula used for the allocation to each property owner is as follows:

[(The financial year balance of the reserve funds – the proportion of the General Fund allocation) x (The total amount paid by the property owner)/(The total amount paid into the reserve by all property owners)] + Interest

The following sequential calculations were carried out to determine the allocation amount:

Calculation step	Calculation
1. Calculate Total Income per Financial Year for years where special charges were levied	*Total Income = Special Charge + General Fund Contribution + Interest Income + General Rate* Note: Interest Income is income earned by the Council from funds which have been placed in bank accounts and allocated to the reserve as additional income.
2. Calculate the Total Expenditure per Financial Year	*Total Expenses = Operational Expenses + Revetment Wall Repairs + Repayment of loan from QTC*
3. Calculate the Financial Year Balance and "Positive Financial Year Balance"	*FYear Balance =(Total Income – Total Expenditure)* *Positive FYear Balance = FYear Balance, where FYear Balance > 0*
4. Calculate the percentage fractions of Capital and Operational Expenditure	*Operational Expenditure % of Total Expense = (Total Operational Expenses) / (Total Expenses)* *Capital Expenditure % of Total Expense = (Total Capital Expenses) / (Total Expenses)* *Where:* *Total Capital Expenses = (Revetment Wall Repairs) + (Repayment of loan from QTC)*
5. Calculate the allocation to General Fund for Capital and Operations	*(General Fund Allocation: Capital) = (Capital Expenditure % of Total Expenses) x (General Fund % Contribution for Capital) x (Positive FYear Remainder)* *(General Fund Allocation: Operations) = (Operational Expediture % of Total Expenses) x (General Fund % Contribution for Operational) x (Positive FYear Remainder)*

Calculation step	Calculation
6. Calculate the total to be allocated to the property owners for each Financial Year of the remaining reserve balance	*Total Allocated to Property Owners =* *Remainder* if Total Income Special Charges >= Remainder or *Total Income Special Charges* if Total Income Special Charges < Remainder Where: **Remainder** = (Positive FYear Balance – Amount repaid to the Council)
7. Calculate the amount to be allocated to each Property Owner per Financial Year	***Amount to be Allocated to Property Owner** = (Total for Allocation) x (Amount Paid by Property Owner) / (Total Special Charges Income)* Where: **Amount Paid By Property Owner** = Sum of all Special Charges where Ownership <= Charge Date and Ownership > Charge Date
8. Calculate the interest calculations for each Property, Owner, Financial Year and Reserve	Interest calculation $$A = P\left(1 + \frac{r}{n}\right)^{nt}$$ Where: A = Final Amount P = Principal r = interest rate per annum t = time in years n = number of times interest is compounded per year (365 for daily compounding in normal year, 366 for leap year)
9. Calculate the total amount to be allocated to each Property Owner	Amount to be allocated + Interest amount

The subsequent sections set out further details in relation to each of the calculations outlined above.

5.3.1. Calculate Total Income per Financial Year (FYear)

Calculation:	Total Income = Special Charge + General Fund Contribution + Interest Income + General Rate Note: Interest Income is income earned by the Council from funds which have been placed in bank accounts and allocated to the reserve as additional income.
Method of calculation:	Database Stored Procedure "Create_tbcReserveSummaryCorrected"
Checks/verification:	Manual/Excel

Results:

Reserve	Fyear	Special Charge (Paid)	General Fund contribution	Interest income	General rate	Total income
Aquatic Paradise Canal Reserve	11/12	20,905.44	158,283.00	24,606.58	362,344.45	566,139.47
Aquatic Paradise Canal Reserve	12/13	21,846.24	126,982.68	50,941.61	274,443.00	474,213.53
Aquatic Paradise Canal Reserve	13/14	433,680.40	186,258.28	49,098.17	0.00	669,036.85
Aquatic Paradise Canal Reserve	14/15	586,282.00	251,834.84	59,697.51	0.00	897,814.35
Aquatic Paradise Canal Reserve	15/16	593,706.20	255,039.38	60,008.81	0.00	908,754.39
Aquatic Paradise Canal Reserve	16/17	443,497.78	191,415.54	41,193.68	0.00	676,107.00
Sovereign Waters Lake Reserve	11/12	0.00	15,696.00	19,742.02	45,685.00	81,123.02
Sovereign Waters Lake Reserve	12/13	0.00	15,948.00	16,763.61	37,211.00	69,922.61
Sovereign Waters Lake Reserve	13/14	31,821.48	13,714.28	11,986.20	0.00	57,521.96
Sovereign Waters Lake Reserve	14/15	33,455.45	14,400.00	10,991.76	0.00	58,847.21
Sovereign Waters Lake Reserve	15/16	34,331.52	14,774.56	8,574.69	0.00	57,680.77
Sovereign Waters Lake Reserve	16/17	26,311.80	11,320.08	4,833.31	0.00	42,465.19
Raby Bay Canal Reserve	11/12	1,290,129.80	407,626.00	70,133.80	391,335.00	2,159,224.60
Raby Bay Canal Reserve	12/13	1,343,574.06	385,447.99	103,251.44	110,544.00	1,942,817.49
Raby Bay Canal Reserve	13/14	1,772,880.25	445,046.80	157,867.60	0.00	2,375,794.65
Raby Bay Canal Reserve	14/15	2,049,501.63	513,039.56	133,098.79	0.00	2,695,639.98
Raby Bay Canal Reserve	15/16	2,106,851.76	528,246.79	101,524.04	0.00	2,736,622.59
Raby Bay Canal Reserve	16/17	1,629,014.19	408,887.50	54,383.31	0.00	2,092,285.00

Reserve	Fyear	Special Charge (Paid)	General Fund contribution	Interest income	General rate	Total income
Totals		12,417,790.00	3,943,961.28	978,696.93	1,221,562.45	18,562,010.66

5.3.2. Calculate the Total Expenditure per FYear

Calculation:	Total Expenses = Operational Expenses + Expense Revetment Wall Repairs + Repayment of loan from QTC
Method of calculation:	Database Stored Procedure "Create_tbcReserveSummaryCorrected"
Checks/ verification:	Manual/Excel

Results:

Reserve	Fyear	Operational expenses	Revetment wall repairs	Repayment of loan from QTC	Total expenses
Aquatic Paradise Canal Reserve	11/12	32,991.22	0.00	0.00	32,991.22
Aquatic Paradise Canal Reserve	12/13	59,043.09	0.00	0.00	59,043.09
Aquatic Paradise Canal Reserve	13/14	66,911.18	0.00	0.00	66,911.18
Aquatic Paradise Canal Reserve	14/15	227,674.97	0.00	0.00	227,674.97
Aquatic Paradise Canal Reserve	15/16	58,890.47	0.00	0.00	58,890.47
Aquatic Paradise Canal Reserve	16/17	1,781,105.53	0.00	0.00	1,781,105.53
Sovereign Waters Lake Reserve	**11/12**	44,749.22	0.00	0.00	44,749.22
Sovereign Waters Lake Reserve	12/13	68,134.98	0.00	0.00	68,134.98
Sovereign Waters Lake Reserve	13/14	81,991.40	0.00	0.00	81,991.40
Sovereign Waters Lake Reserve	14/15	52,457.20	0.00	0.00	52,457.20
Sovereign Waters Lake Reserve	15/16	106,942.01	0.00	0.00	106,942.01
Sovereign Waters Lake Reserve	16/17	83,752.22	0.00	0.00	83,752.22

![BDO logo]

Reserve	Fyear	Operational expenses	Revetment wall repairs	Repayment of loan from QTC	Total expenses
Raby Bay Canal Reserve	11/12	0.00	493,300.00	0.00	493,300.00
Raby Bay Canal Reserve	12/13	341,172.43	261,805.77	0.00	602,978.20
Raby Bay Canal Reserve	13/14	240,344.63	151,751.91	478,240.28	870,336.82
Raby Bay Canal Reserve	14/15	591,558.76	1,009,416.48	478,240.27	2,079,215.51
Raby Bay Canal Reserve	15/16	758,905.72	3,198,188.16	478,240.32	4,435,334.20
Raby Bay Canal Reserve	16/17	261,771.84	830,343.00	358,680.24	1,450,795.08
Total		4,858,396.87	5,944,805.32	1,793,401.11	12,596,603.30

5.3.3. Calculate the FYear Balance and "Positive FYear Balance"

The "Positive FYear Balance is to only allocate monies for financial years where there was a positive balance. Negative balances are years where no action is taken and no money allocated.

Calculation:	*FYear Balance =(Total Income – Total Expenditure)*
	Positive FYear Balance = (FYear Balance) IF (FYear Balance) > 0
	Positive FYear Balance = 0 IF (FYear Balance) <= 0
Method of calculation:	Database Stored Procedure "Create_tbcReserveSummaryCorrected"
Checks/verification:	Manual/Excel

Results:

Reserve	Fyear	Total income	Total expenses	Fyear balance	Positive Fyear balance
Aquatic Paradise Canal Reserve	11/12	566,139.47	32,991.22	533,148.25	533,148.25
Aquatic Paradise Canal Reserve	12/13	474,213.53	59,043.09	415,170.44	415,170.44
Aquatic Paradise Canal Reserve	13/14	669,036.85	66,911.18	602,125.67	602,125.67
Aquatic Paradise Canal Reserve	14/15	897,814.35	227,674.97	670,139.38	670,139.38
Aquatic Paradise Canal Reserve	15/16	908,754.39	58,890.47	849,863.92	849,863.92
Aquatic Paradise Canal Reserve	16/17	676,107.00	1,781,105.53	-1,104,998.53	0.00
Sovereign Waters Lake Reserve	11/12	81,123.02	44,749.22	36,373.80	36,373.80
Sovereign Waters Lake Reserve	12/13	69,922.61	68,134.98	1,787.63	1,787.63
Sovereign Waters Lake Reserve	13/14	57,521.96	81,991.40	-24,469.44	0.00
Sovereign Waters Lake Reserve	14/15	58,847.21	52,457.20	6,390.01	6,390.01
Sovereign Waters Lake Reserve	15/16	57,680.77	106,942.01	-49,261.24	0.00
Sovereign Waters Lake Reserve	16/17	42,465.19	83,752.22	-41,287.03	0.00

Reserve	Fyear	Total income	Total expenses	Fyear balance	Positive Fyear balance
Raby Bay Canal Reserve	11/12	2,159,224.60	493,300.00	1,665,924.60	1,665,924.60
Raby Bay Canal Reserve	12/13	1,942,817.49	602,978.20	1,339,839.29	1,339,839.29
Raby Bay Canal Reserve	13/14	2,375,794.65	870,336.82	1,505,457.83	1,505,457.83
Raby Bay Canal Reserve	14/15	2,695,639.98	2,079,215.51	616,424.47	616,424.47
Raby Bay Canal Reserve	15/16	2,736,622.59	4,435,334.20	-1,698,711.61	0.00
Raby Bay Canal Reserve	16/17	2,092,285.00	1,450,795.08	641,489.92	641,489.92

5.3.4. Calculate the proportion of Capital and Operational Expenditure for each year

Calculations:	*Total Operational Expenses = (Operational Expenses)*
	Total Capital Expenses = (Revetment Wall Repairs) + (Repayment of loan from QTC)
	Capital % of Total Expense = (Total Capital Expenses) / (Total Expenses)
	Operational % of Total Expense = (Total Operational Expenses) / (Total Expenses)
Method of calculation:	Database Stored Procedure "05_Create_tblReserveCouncilContribution"
Checks/verification:	Manual/Excel

Results:

Reserve	Fyear	Operational expenses	Capital expenses	Total expenses	Operational % of total expenses	Capital % of total expenses
Aquatic Paradise Canal Reserve	11/12	32,991.22	0.00	32,991.22	100.00%	0.00%
Aquatic Paradise Canal Reserve	12/13	59,043.09	0.00	59,043.09	100.00%	0.00%
Aquatic Paradise Canal Reserve	13/14	66,911.18	0.00	66,911.18	100.00%	0.00%
Aquatic Paradise Canal Reserve	14/15	227,674.97	0.00	227,674.97	100.00%	0.00%
Aquatic Paradise Canal Reserve	15/16	58,890.47	0.00	58,890.47	100.00%	0.00%
Aquatic Paradise Canal Reserve	16/17	1,781,105.53	0.00	1,781,105.53	100.00%	0.00%
Sovereign Waters Lake Reserve	11/12	44,749.22	0.00	44,749.22	100.00%	0.00%
Sovereign Waters Lake Reserve	11/12	68,134.98	0.00	68,134.98	100.00%	0.00%

Reserve	Fyear	Operational expenses	Capital expenses	Total expenses	Operational % of total expenses	Capital % of total expenses
Sovereign Waters Lake Reserve	13/14	81,991.40	0.00	81,991.40	100.00%	0.00%
Sovereign Waters Lake Reserve	14/15	52,457.20	0.00	52,457.20	100.00%	0.00%
Sovereign Waters Lake Reserve	15/16	106,942.01	0.00	106,942.01	100.00%	0.00%
Sovereign Waters Lake Reserve	16/17	83,752.22	0.00	83,752.22	100.00%	0.00%
Raby Bay Canal Reserve	11/12	0.00	493,300.00	493,300.00	0.00%	100.00%
Raby Bay Canal Reserve	12/13	341,172.43	261,805.77	602,978.20	56.58%	43.42%
Raby Bay Canal Reserve	13/14	240,344.63	629,992.19	870,336.82	27.62%	72.38%
Raby Bay Canal Reserve	14/15	591,558.76	1,487,656.75	2,079,215.51	28.45%	71.55%
Raby Bay Canal Reserve	15/16	758,905.72	3,676,428.48	4,435,334.20	17.11%	82.89%
Raby Bay Canal Reserve	16/17	261,771.84	1,189,023.24	1,450,795.08	18.04%	81.96%

5.3.5. Calculate the allocation to General Fund for Capital and Operations

Calculations:	*(General Funds Allocation: Capital) = (Capital % of Total Expenses) x (General Fund % of Contribution for Capital Expenses) x (Positive FYear Remainder)*
	(General Funds Allocation: Operations) = (Operational % Total Expenses) x (General Fund % Contribution to Operational Expenses) x (Positive FYear Remainder)
Method of calculation:	Database Stored Procedure "05_Create_tblReserveCouncilContribution"
Checks/Verification:	Manual/Excel

Results:

Reserve	Fyear	Positive Fyear balance	Operational expense fraction	Capital expense fraction	General Fund % contribution to operational expenses	General Fund % contribution to capital expenses	General Fund Allocation: Operations	General Fund Allocation: Capital
Aquatic Paradise Canal Reserve	11/12	533,148.25	100.00%	0.00%	30%	30%	159,944.48	0.00
Aquatic Paradise Canal Reserve	12/13	415,170.44	100.00%	0.00%	30%	30%	124,551.13	0.00
Aquatic Paradise Canal Reserve	13/14	602,125.67	100.00%	0.00%	30%	30%	180,637.70	0.00
Aquatic Paradise Canal Reserve	14/15	670,139.38	100.00%	0.00%	30%	30%	201,041.81	0.00
Aquatic Paradise Canal Reserve	15/16	849,863.92	100.00%	0.00%	30%	30%	254,959.18	0.00
Aquatic Paradise Canal Reserve	16/17	0.00	100.00%	0.00%	30%	30%	0.00	0.00
Sovereign Waters Lake Reserve	11/12	36,373.80	100.00%	0.00%	100%	0%	36,373.80	0.00
Sovereign Waters Lake Reserve	12/13	1,787.63	100.00%	0.00%	100%	0%	1,787.63	0.00
Sovereign Waters Lake Reserve	13/14	0.00	100.00%	0.00%	30%	30%	0.00	0.00
Sovereign Waters Lake Reserve	14/15	6,390.01	100.00%	0.00%	30%	30%	1,917.00	0.00
Sovereign Waters Lake Reserve	15/16	0.00	100.00%	0.00%	30%	30%	0.00	0.00
Sovereign Waters Lake Reserve	16/17	0.00	100.00%	0.00%	30%	30%	0.00	0.00

Reserve	Fyear	Positive Fyear balance	Operational expense fraction	Capital expense fraction	General Fund % contribution to operational expenses	General Fund % contribution to capital expenses	General Fund Allocation: Operations	General Fund Allocation: Capital
Raby Bay Canal Reserve	11/12	1,665,924.60	0.00%	100.00%	30%	20%	0.00	333,184.92
Raby Bay Canal Reserve	12/13	1,339,839.29	56.58%	43.42%	30%	20%	227,429.23	116,348.37
Raby Bay Canal Reserve	13/14	1,505,457.83	27.62%	72.38%	20%	20%	83,146.82	217,944.74
Raby Bay Canal Reserve	14/15	616,424.47	28.45%	71.55%	20%	20%	35,075.85	88,209.04
Raby Bay Canal Reserve	15/16	0.00	17.11%	82.89%	20%	20%	0.00	0.00
Raby Bay Canal Reserve	16/17	641,489.92	18.04%	81.96%	20%	20%	23,149.24	105,148.75

5.3.6. Calculate the total to be allocated to the property owners for each FYear

Calculations:	(Remainder) = (Positive FYear Balance – General Funds Contribution to Capital Expenses – General Funds Contribution to Operational Expenses)
	Total Allocated to Property Owners = (Remainder) if Total Income Special Charges >= Remainder
	Total Allocated to Property Owners = (Total Income Special Charges) if Total Income Special Charges < Remainder
	Allocated to General Fund = Remainder - Total Allocated to Property Owners
Method of Calculation:	Database Stored Procedure "05_Create_tblReserveCouncilContribution"
Checks/Verification:	Manual/Excel

Note that the above calculation was to ensure that the property owners were not overcompensated due to an excess of funds being available greater than the amount paid via special charges.

Results:

Reserve	Fyear	Positive Fyear balance	General Fund Allocation: Operations	General Funds Allocation: Capital	Remainder	Total income – special charge	Total to be allocated to property owners	Allocated to General Fund
Aquatic Paradise Canal Reserve	11/12	533,148.25	159,944.48	0.00	373,203.78	20,905.44	20,905.44	352,298.34
Aquatic Paradise Canal Reserve	12/13	415,170.44	124,551.13	0.00	290,619.31	21,846.24	21,846.24	268,773.07
Aquatic Paradise Canal Reserve	13/14	602,125.67	180,637.70	0.00	421,487.97	433,680.40	421,487.97	0.00
Aquatic Paradise Canal Reserve	14/15	670,139.38	201,041.81	0.00	469,097.57	586,282.00	469,097.57	0.00
Aquatic Paradise Canal Reserve	15/16	849,863.92	254,959.18	0.00	594,904.74	593,706.20	593,706.20	1,198.54
Aquatic Paradise Canal Reserve	16/17	0.00	0.00	0.00	0.00	443,497.78	0.00	0.00
Sovereign Waters Lake Reserve	11/12	36,373.80	36,373.80	0.00	0.00	0.00	0.00	0.00
Sovereign Waters Lake Reserve	12/13[2]	1,787.63	1,787.63	0.00	0.00	0.00	0.00	0.00
Sovereign Waters Lake Reserve	13/14	0.00	0.00	0.00	0.00	31,821.48	0.00	0.00
Sovereign Waters Lake Reserve	14/15	6,390.01	1,917.00	0.00	4,473.01	33,455.45	4,473.01	0.00
Sovereign Waters Lake Reserve	15/16	0.00	0.00	0.00	0.00	34,331.52	0.00	0.00
Sovereign Waters Lake Reserve	16/17	0.00	0.00	0.00	0.00	26,311.80	0.00	0.00

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[2] The positive FYear balance year is greater than zero for Sovereign Waters for FYear 11/12 and FYear 12/13. However, subsequent calculations will show zero allocation for Sovereign Waters for FYear 11/12 and FYear 12/13. This is due to there being no income via special charges during these financial years.

Reserve	Fyear	Positive Fyear balance	General Fund Allocation: Operations	General Funds Allocation: Capital	Remainder	Total income – special charge	Total to be allocated to property owners	Allocated to General Fund
Raby Bay Canal Reserve	11/12	1,665,924.60	0.00	333,184.92	1,332,739.68	1,290,129.80	1,290,129.80	42,609.88
Raby Bay Canal Reserve	12/13	1,339,839.29	227,429.23	116,348.37	996,061.69	1,343,574.06	996,061.69	0.00
Raby Bay Canal Reserve	13/14	1,505,457.83	83,146.82	217,944.74	1,204,366.26	1,772,880.25	1,204,366.26	0.00
Raby Bay Canal Reserve	14/15	616,424.47	35,075.85	88,209.04	493,139.58	2,049,501.63	493,139.58	0.00
Raby Bay Canal Reserve	15/16	0.00	0.00	0.00	0.00	2,106,851.76	0.00	0.00
Raby Bay Canal Reserve	16/17	641,489.92	23,149.24	105,148.75	513,191.94	1,629,014.19	513,191.94	0.00

5.3.7. Calculate the Property Owner Proportion Paid per Financial Year

Calculations:	*(Amount Paid By Property Owner) = Sum of all Special Charges where Ownership <= Charge Date and Ownership > Charge Date*
	(Amount to be Allocated to Property Owner) = (Total for Allocation) x (Amount Paid by Property Owner) / (Total Special Charges Income)
Method of calculation:	Database Stored Procedure "08_Create_tbcJoinedFile"
	Database Stored Procedure "07_FindPropertyEventDates"
Checks/verification:	Manual/Excel. Total Amount for Allocation for all property owners must be equal before and after the Allocation Calculation

Example Results:

FYear	Property	Reserve	Owner	Total special charges income	To be allocated to property owners	Amount paid by individual property owner	Amount to be allocated to individual property owner
12/13	27804	Raby Bay Canal Reserve	"A"	1,343,574.06	996,061.69	1,440.32	1,067.78
12/13	56745	Raby Bay Canal Reserve	"B"	1,343,574.06	996,061.69	1,440.32	1,067.78
12/13	56731	Raby Bay Canal Reserve	"C"	1,343,574.06	996,061.69	720.16	533.89
12/13	20591	Raby Bay Canal Reserve	"D"	1,343,574.06	996,061.69	720.16	533.89
12/13	49556	Raby Bay Canal Reserve	"E"	1,343,574.06	996,061.69	1,440.32	1,067.78
12/13	55762	Raby Bay Canal Reserve	"F"	1,343,574.06	996,061.69	1,440.32	1,067.78
12/13	52032	Raby Bay Canal Reserve	"G"	1,343,574.06	996,061.69	1,440.32	1,067.78
12/13	52076	Raby Bay Canal Reserve	"H"	1,343,574.06	996,061.69	834.64	618.76

5.3.8. Calculate the interest calculations for each Property, Owner, FYear and Reserve

Calculations:	Compound interest was applied to the allocations as follows:
	Start of Interest calculations: End of Financial year that the charges were levied
	Interest Rate:
	Interest calculated on: Daily Amount
	Interest calculation

$$A = P\left(1 + \frac{r}{n}\right)^{nt}$$

Where A = Final Amount

P = Principal

r = interest rate per annum

t = time in years

n = number of times interest is compounded per year (365 for daily compounding in normal year, 366 for leap year)

Method of calculation:	Database Stored Procedure "09_Calculate_Full_Interest"
Database output table	tbcInterestSteps
	tbcFinalReport
Checks/verification:	Manual/Excel

Example of Interest Calculation for a single property, single financial year of special charges

Interest start from	Interest end at	Number of days	Number of days in year	Principal	Interest rate	Interest amount	Final amount
30/06/2012	01/07/2012	1	366	1,378.32	11.45%	0.43	1,378.75
01/07/2012	01/08/2012	31	365	1,378.75	11.10%	13.06	1,391.81
01/08/2012	01/12/2012	122	365	1,391.81	10.85%	51.39	1,443.20
01/12/2012	01/02/2013	62	365	1,443.20	10.65%	26.34	1,469.54
01/02/2013	01/07/2013	150	365	1,469.54	10.45%	64.48	1,534.02
01/07/2013	01/10/2013	92	365	1,534.02	10.20%	39.94	1,573.96
01/10/2013	01/02/2015	488	365	1,573.96	9.95%	223.92	1,797.88
01/02/2015	02/04/2015	60	365	1,797.88	9.80%	29.19	1,827.08
02/04/2015	31/05/2015	59	365	1,827.08	9.70%	28.87	1,855.95
31/05/2015	01/07/2015	31	365	1,855.95	9.55%	15.11	1,871.06
01/07/2015	02/07/2015	1	366	1,871.06	9.55%	0.49	1,871.55
02/07/2015	02/03/2016	244	366	1,871.55	9.45%	121.68	1,993.23
02/03/2016	03/05/2016	62	366	1,993.23	9.55%	32.50	2,025.73
03/05/2016	01/07/2016	59	366	2,025.73	9.60%	31.59	2,057.32
01/07/2016	03/10/2016	94	365	2,057.32	9.35%	50.13	2,107.46
03/10/2016	31/08/2017	332	365	2,107.46	9.25%	184.96	2,292.42

Note: The interest calculations set out above differ from the interim calculation steps due to rounding. This does not have a material impact on the results.

5.3.9. Calculate the total amount to be allocated to Property Owners

Calculations:	Per financial year, per reserve: Final Allocation To Property Owners = Amount To Be Allocated to Property Owners + Interest Accrued on Allocation
Method of Calculation:	Database Stored Procedure "10_FinalSummation"
Database Output Table	tbcInterestSteps
Checks/Verification:	Manual/Excel

Reserve	FYear	General Fund Allocation: Operations	General Fund Allocation: Capital	General Fund Allocation - Other	To be allocated to property owners	Interest accrued on allocation	Total allocation to property owners
Aquatic Paradise Canal Reserve	11/12	159,944.48	0.00	352,298.34	20,905.44	13,864.47	34,769.91
Aquatic Paradise Canal Reserve	12/13	124,551.13	0.00	268,773.07	21,846.24	10,809.87	32,656.11
Aquatic Paradise Canal Reserve	13/14	180,637.70	0.00	0.00	421,487.97	148,528.02	570,015.99
Aquatic Paradise Canal Reserve	14/15	201,041.81	0.00	0.00	469,097.57	105,791.28	574,888.85
Aquatic Paradise Canal Reserve	15/16	254,959.18	0.00	1,198.54	593,706.20	68,018.45	661,724.65
Aquatic Paradise Canal Reserve	16/17	0.00	0.00	0.00	0.00	0.00	0.00
Aquatic Paradise Total		**921,134.30**	**0.00**	**622,269.95**	**1,527,043.42**	**347,012.10**	**1,874,055.52**

Reserve	FYear	General Fund Allocation: Operations	General Fund Allocation: Capital	General Fund Allocation - Other	To be allocated to property owners	Interest accrued on allocation	Total allocation to property owners
Sovereign Waters Lake Reserve	11/12	36,373.80	0.00	0.00	0.00	0.00	0.00
Sovereign Waters Lake Reserve	12/13	1,787.63	0.00	0.00	0.00	0.00	0.00
Sovereign Waters Lake Reserve	13/14	0.00	0.00	0.00	0.00	0.00	0.00
Sovereign Waters Lake Reserve	14/15	1,917.00	0.00	0.00	4,473.01	1,008.76	5,481.76
Sovereign Waters Lake Reserve	15/16	0.00	0.00	0.00	0.00	0.00	0.00
Sovereign Waters Lake Reserve	16/17	0.00	0.00	0.00	0.00	0.00	0.00
Sovereign Waters Total		**40,078.43**	**0.00**	**0.00**	**4,473.01**	**1,008.76**	**5,481.76**
Raby Bay Canal Reserve	11/12	0.00	333,184.92	42,609.88	1,290,129.80	855,613.05	**2,145,742.85**
Raby Bay Canal Reserve	12/13	227,429.23	116,348.37	0.00	996,061.69	492,739.96	**1,488,801.65**
Raby Bay Canal Reserve	13/14	83,146.82	217,944.74	0.00	1,204,366.26	424,406.28	**1,628,772.55**
Raby Bay Canal Reserve	14/15	35,075.85	88,209.04	0.00	493,139.58	111,213.25	**604,352.83**
Raby Bay Canal Reserve	15/16	0.00	0.00	0.00	0.00	0.00	**0.00**
Raby Bay Canal Reserve	16/17	23,149.24	105,148.75	0.00	513,191.94	8,126.08	**521,318.02**
Raby Bay Total		**368,801.14**	**860,835.82**	**42,609.88**	**4,496,889.26**	**1,892,098.63**	**6,388,987.90**
Total		**1,330,013.87**	**860,835.82**	**664,879.83**	**6,028,405.69**	**2,240,119.49**	**8,268,525.18**

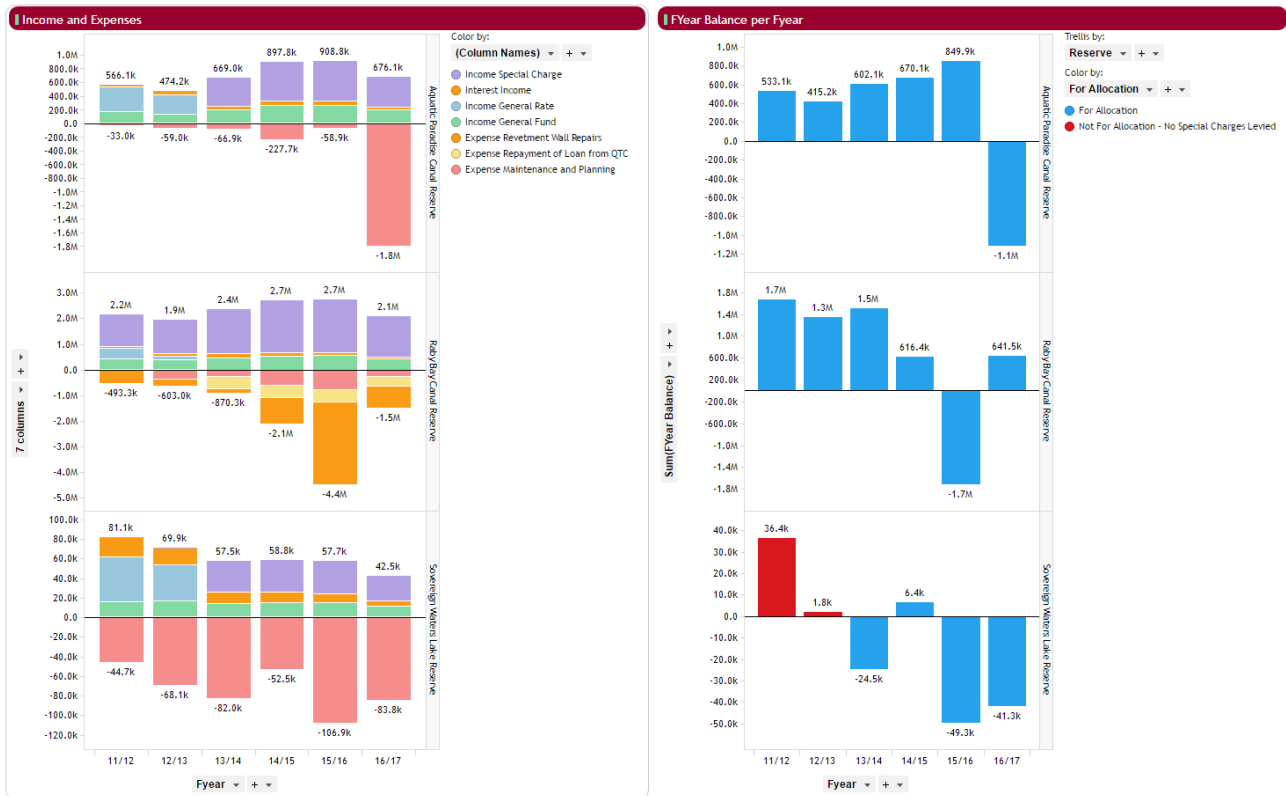## 5.4. Calculation validation process

A comprehensive validation process has been undertaken for each step of the calculation. An overview of this process is set out in the table below. In addition, a full spreadsheet of all inputs (consolidated sheets), and calculated output results has been provided with this report.

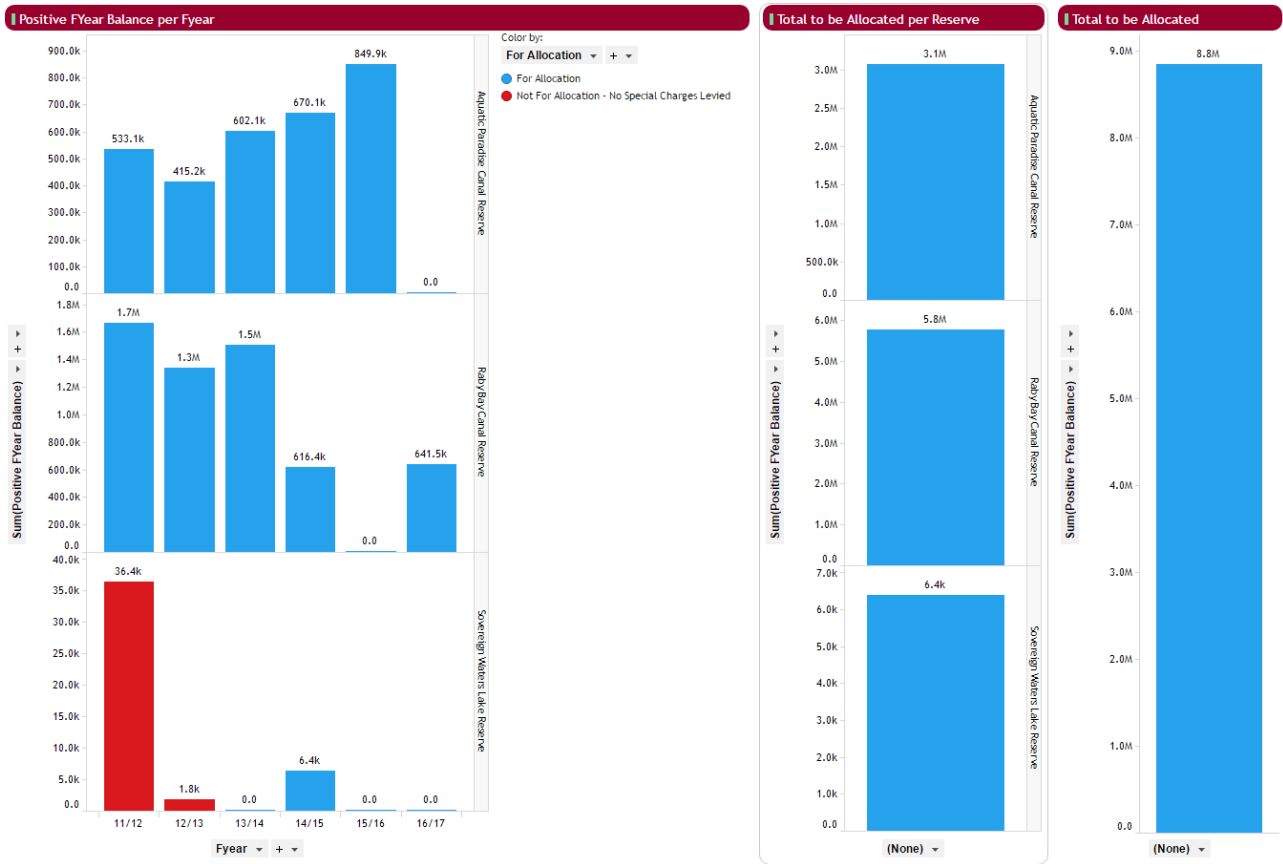| Stage	Calculations	Checks
Data Collation and Database Development	Consolidation of Excel files for import into database	• Manual Excel Checks • For Each Sheet: Check number of rows matched • Check contents of first and last lines from the component tab match in the merged tab
	Import into Database	• BCP Import Utility used in importing data, which creates failure records on poorly formatted data • First and last records and number of records compared with excel files • Independent Checks of Excel and inserted records
Data Transformation	Matching of Property Ownership to Properties and Special Charges	• Custom stored procedures used to identify issues where the ownership was unknown (02_BackFill_Missing_Records) • Corrections made in consultation with the Property and Rating system data owner • Corrections made to original Excel merged spreadsheet • Data re-imported • Stored procedure re-run, and confirm that there are no properties with specials charges and no recorded ownership • Independent checks of single property owner examples checked and confirmed
	Calculation of Reserve amounts to be allocated:	• Checks done via exporting inputs and results to Microsoft Excel and checking final numbers. Results have also been posted in this report.
	Calculation of Amounts Paid by Property Members and Allocation Amounts	• Summation of all property owners contributions matched with income totals (no match = missing property ownership records) • Random properties checked for correctness • Independent checks on all code and results

Stage	Calculations	Checks
	Calculation of Allocation Amounts	• Summation of all property owners allocation amounts matched with total amount to be allocated for FYear and Reserve • Random property owners detailed checked against the calculated record • Independent checks on all code and results
	Calculation of Interest	• Full output of all interest calculations provided in spreadsheet format • Independent checks on all code and results

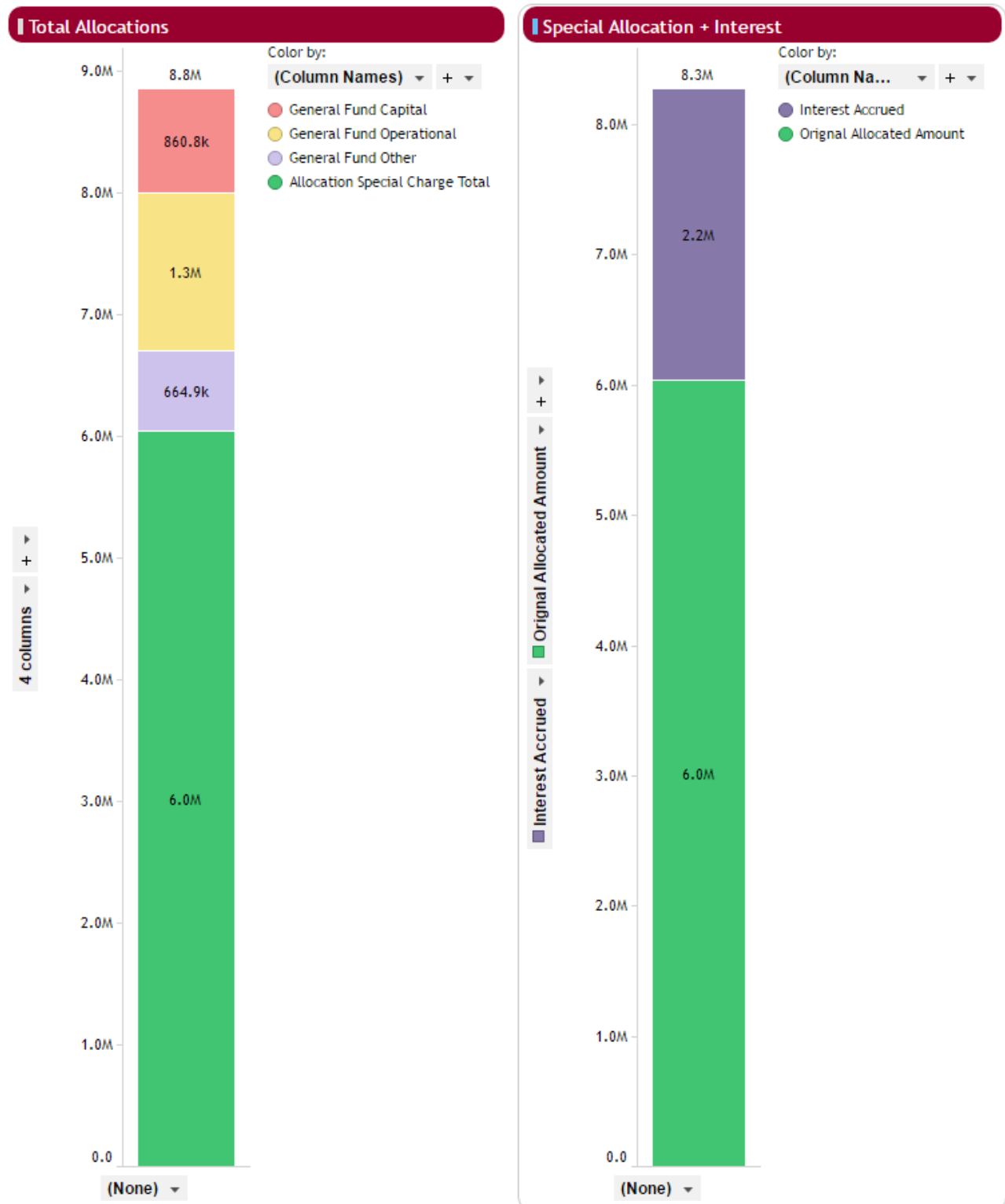# APPENDIX 1: GRAPHICAL REPRESENTATION OF CALCULATIONS

A1.1 Reserve Balances

A1.2 Positive FYear Balances and Total Allocation Amounts

Positive FYear Balance per Fyear

Color by:
For Allocation
● For Allocation
● Not For Allocation - No Special Charges Levied

Aquatic Paradise Canal Reserve: 533.1k, 415.2k, 602.1k, 670.1k, 849.9k, 0.0

Raby Bay Canal Reserve: 1.7M, 1.3M, 1.5M, 616.4k, 0.0, 641.5k

Sovereign Waters Lake Reserve: 36.4k, 1.8k, 0.0, 6.4k, 0.0, 0.0

Fyear: 11/12, 12/13, 13/14, 14/15, 15/16, 16/17

Total to be Allocated per Reserve

Aquatic Paradise Canal Reserve: 3.1M
Raby Bay Canal Reserve: 5.8M
Sovereign Waters Lake Reserve: 6.4k

(None)

Total to be Allocated

8.8M

(None)

A1.3 Total Allocation Amounts and Interest

A1.3 Number of Allocations for Special Charge

Due to ownership changes and FYears where the final balance was zero, not all owners and properties receive a payment from their allocation. The graphs below separate the allocation into non-zero and zero allocations for owner and property combinations.

Number of Non-Zero Allocations (Owner and Property)
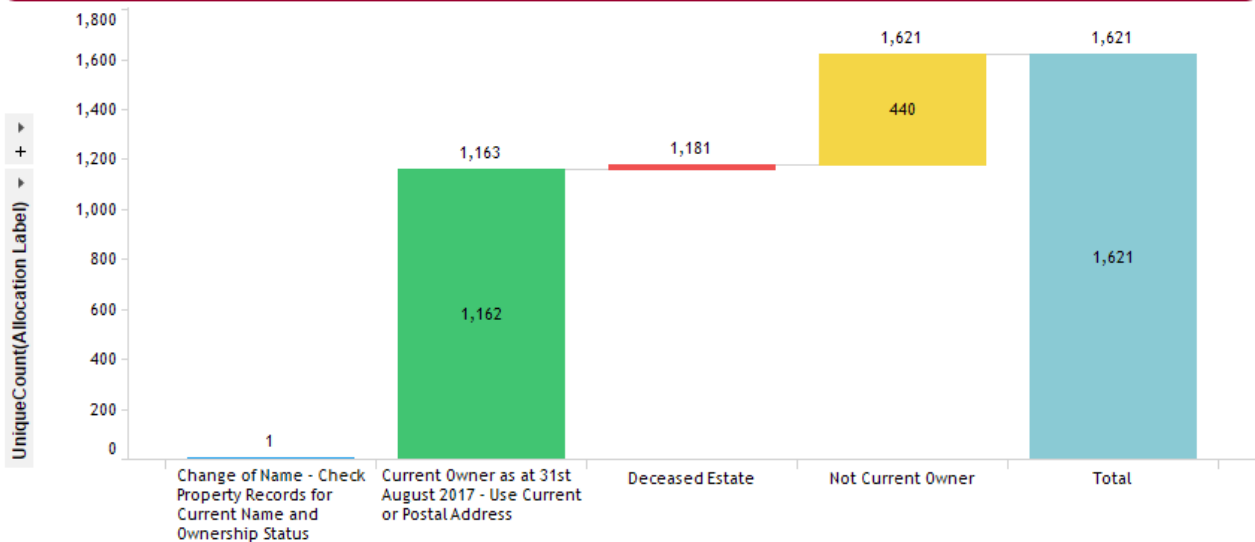
Current_Ownership
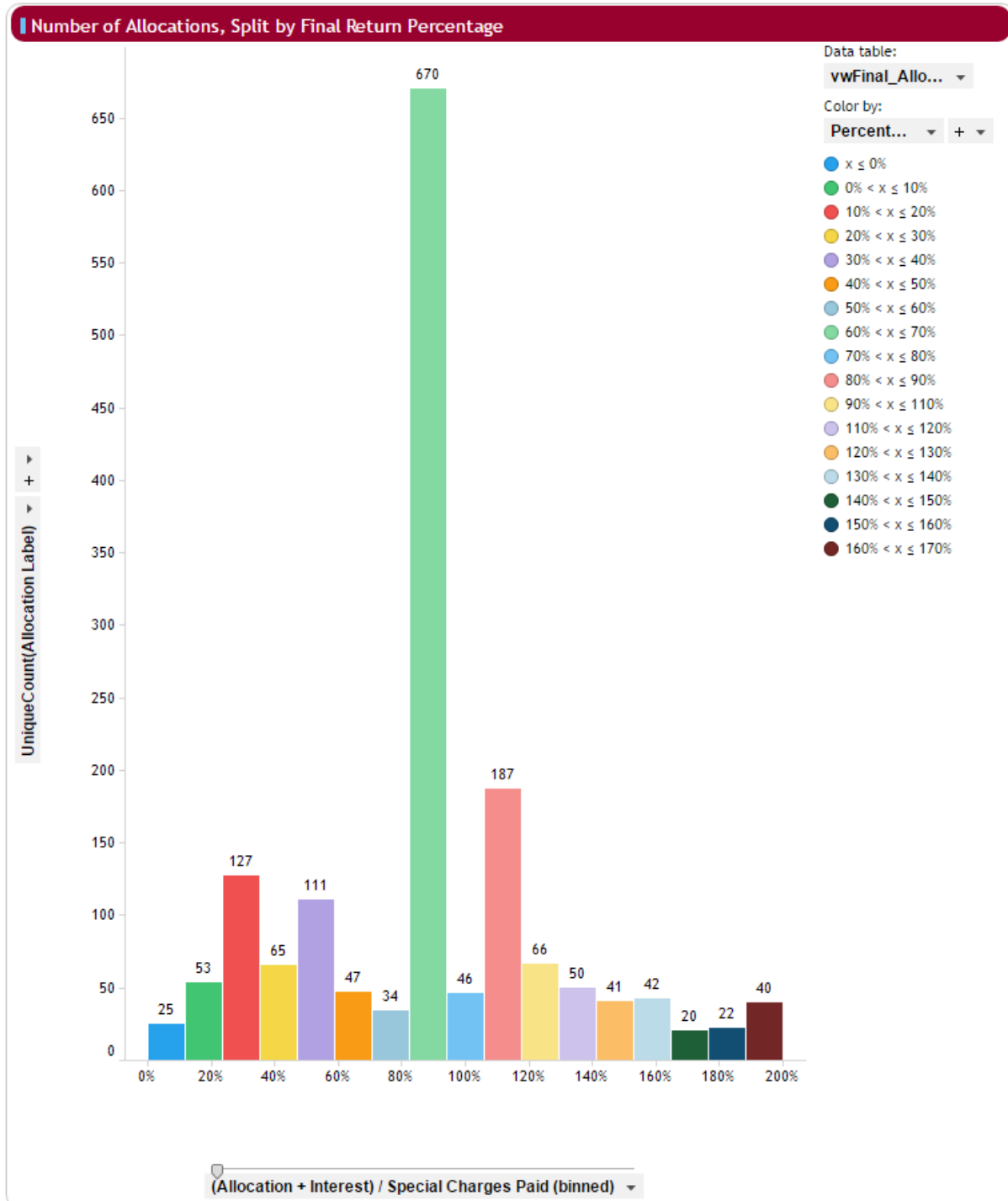

Number of Zero ($0) Allocations (Owner and Property)
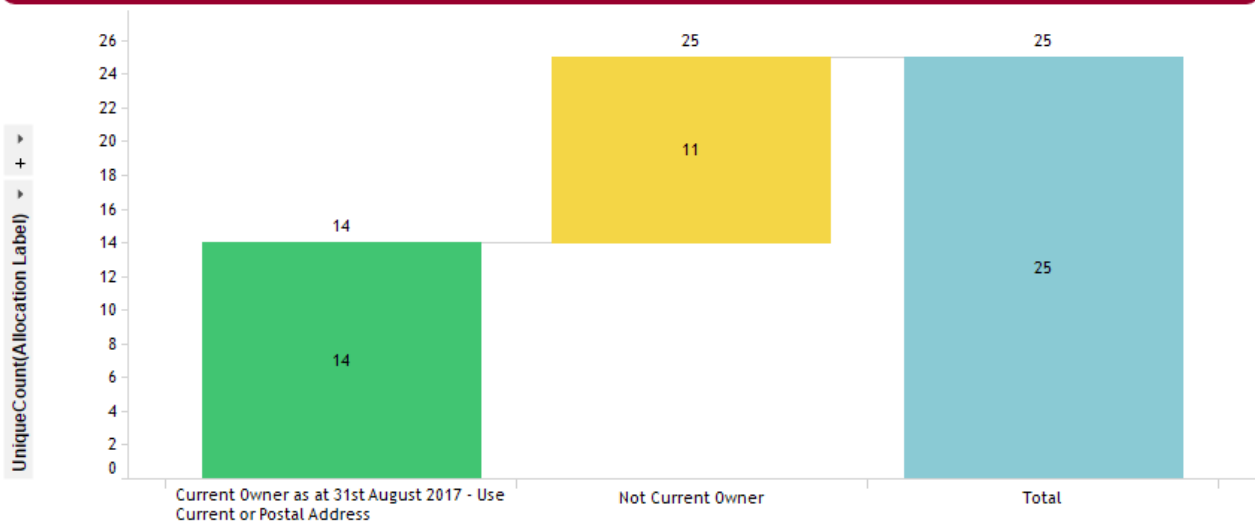
Current_Ownership

A1.4 Return Profile for Final Allocations

The graph below displays the number of allocations (Owner and Property) compared with the final return percentage. The return percentage is calculated as:

(Owner Allocation + Interest) / (Total Special Charges Paid by Owner)

Note that the graph below includes zero allocations which have resulted for a small number of owners.

Number of Allocations, Split by Final Return Percentage

Data table: vwFinal_Allo...

Color by: Percent...

- x ≤ 0%
- 0% < x ≤ 10%
- 10% < x ≤ 20%
- 20% < x ≤ 30%
- 30% < x ≤ 40%
- 40% < x ≤ 50%
- 50% < x ≤ 60%
- 60% < x ≤ 70%
- 70% < x ≤ 80%
- 80% < x ≤ 90%
- 90% < x ≤ 110%
- 110% < x ≤ 120%
- 120% < x ≤ 130%
- 130% < x ≤ 140%
- 140% < x ≤ 150%
- 150% < x ≤ 160%
- 160% < x ≤ 170%

APPENDIX 2: STORED PROCEDURES FOR DATA TRANSFORMATIONS LISTING

The table below is a full list of the transformation operations and the order they were carried out. A full scripting of the database is available.

Input	Operation	Stored procedure	Output
tblChangeLogAll_raw tblNoChangeAll_raw tbl_Final_Wonership_Changes_raw tblChangedIsCurrentOwnerAll	Clears out the working tables and re-fills them with information up to date of 31st August 2017	00A_Update_Property_Changes	tblChangeLogAll tblNoChangeAll tbl_Final_Wonership_Changes tblChangedIsCurrentOwnerAll
tblLeviesAndBalances	Creation of table and contents for matching FYear names and dates	Custom stored procedure 0_Create_FYear_Table	tblFinancialYear
tblChangeLogAll	Updating "null" ownership dates to match beginning or end of charge period	Custom stored procedure 1_Update_tblChangeLogAll_BlankOwnershipDates	tblChangeLogAll
tblChangeLogAll	Inserting "Unknown" property holders for any missing ownership periods. Used for flagging property ownership records which need to be corrected	Custom stored procedure 02_BackFill_Missing_Records	tblChangeLogAll
tblLeviesAndBalances	Creating match table for charges and reserve names (by condensing from tblLeviesandBalances)	Custom stored procedure 3_Create_tbcChargeAndReserves	tbcChargeAndReserves
tblReserveSummary tblLeviesAndBalances	Creating a corrected summary of the reserve balances using the income paid rather than the levied amount.	Custom Stored Procedure 04_Create_tbcReserveSummaryCorrected	tbcReserveSummaryCorrected

Input	Operation	Stored procedure	Output
tbcChargeAndReserves			
Council Supplied Table: Table of CouncilReserve Contribution Percentages	Create reference table for The Council percentages	Custom Stored Procedure 05_Create_tblReserveCouncilContribution	tblReserveCouncilContribution
Historical Standard Contract Default Interest Rates	Crete Reference table with all of the interest rates applicable between 1-7-2011 and 31-8-2017	Custom Stored Procedure 06_Create_InterestRate_Table	tblInterestRates
tblLeviesAndBalances tbl_Transaction_Updates	Inserts final updates on account balances which changed between 2nd May 2017 (1st Data Extraction) and 31st August 2017 (Final Data Extraction)	Custom Stored Procedure 06B_Update_Final_Balance_Changes	tblLeviesAndBalances
tblChangeLogAll tblNoChangeAll	Find the ownership history of every property, the owners, ownership dates and number of concurrent owners (for splitting payments where multiple owners have been identified)	07_FindPropertyEventDates	tbcPropertyEvents
tbcPropertyEvents tblLeviesAndBalances	Join the ownership records with the amount paid by the owners, and the amount to be allocated	08_Create_tbcJoinedFile	tbcJoinedFile
tbcJoinedFile tblInterestRates	Calculate the principal and interest to be allocated to each owner	09_Calculate_FullInterest	tbcInterestSteps tbcFinalReport
tbcReserveSummaryCorrected tbcFinalReport	Calculate the total amounts to be allocated total interest amounts and the final balance for the Redland City Council for each reserve and financial year	10_FinalSummation	tbcReserveSummaryCorrected
Final_Allocation_List	Full report of all owners, properties and amount to be allocated	View: Final_Allocation_List	<Table for Export>