

Matt Bradbury  
Senior Analyst  
Queensland Competition Authority  
Level 19  
12 Creek Street  
Brisbane QLD 4001

18 April 2013

Dear Matt,

## Re: Report on Review of the Seqwater Irrigation Pricing Model (QCA Ref: 1-12-91d)

### 1. Our engagement

The Queensland Competition Authority (the QCA) asked Deloitte Touche Tohmatsu (Deloitte) to perform certain procedures on the model prepared for the purpose of recommending prices for each of Seqwater's nine irrigation schemes for 2013-14 to 2016-17 (the Model).

The services to be performed were described in our proposal dated 13 February 2013. For the avoidance of doubt, the services actually performed have been set out in section 4 below.

### 2. Findings

All exceptions raised from the procedures, have either:

1. Resulted in a change in the Model that has been tested under the procedures below and no further issues/observations have been noted
2. Been noted by the QCA who has indicated that the Model reflects the intended outcome.

### 3. The Model and Input Workbook

During the course of our engagement we were provided with the following versions of the Model as well as an input workbook as outlined in the table below.

File Name	Size (KB)	Date/Time	Version
AUDIT version - DRAFT FINAL REPORT MODEL.xlsm	3,190	25 February 2013	Original Version

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File Name	Size (KB)	Date/Time	Version
AUDIT VERSION - Revised 20 Mar 2013 - DRAFT FINAL REPORT (1).xlsm	3,178	21 March 2013	Updated Version
DRAFT FINAL REPORT MODEL - 4 April 2013 (Final).xlsm	3,085	5 April 2013	Updated Version
SEQW IRRIGATION PRICES - FINAL INPUTS.xlsx	91	08 April 2013	Input Workbook
DRAFT FINAL REPORT MODEL - 4 April 2013 (Final - Modified 2).xlsm	3,083	11 April 2013	Final Updated Version

All procedures in this report refer to the original version and the updated version as held by Deloitte.

#### 4. Our services

In accordance with our consultancy agreement dated 20 February 2013, we have conducted the following procedures on the Model:

##### Procedures on the Original Version

- Reviewed the logic and structure of the Model by using the first cell in a range of cells that contain the same formula relative to that first cell and testing the internal computation logic and arithmetic calculations, as described by the headings, sub-headings and labels of the range
- Reviewed the macros included in the Model
- Documented and presented exceptions identified in the above testing to the QCA.

##### Procedures on Updated Versions

- Without re-performing the above work, we ran Spreadsheet Detective™ software that identified the changes between the Original Version and each of the Updated Versions, including the Final Updated Version. The procedures stated above were performed on those changes.

##### Procedures on Final Updated Version

- Checked that the input/assumptions entered into the input/assumption cells in the Final Updated Version were consistent with the Input Workbook provided by the QCA
- Checked the calculation method used in the Model to derive the recommended prices was consistent with the Seqwater irrigation pricing principles provided by the QCA in an email dated 9 April 2013. The pricing principles provided in the email are set out in the Pricing Policy Description column in Appendix 4 of this report.

Our findings and your responses are included in Appendices 1 to 4.

#### 5. Limitations

The scope of our work in preparing this report has been limited to the procedures outlined above. You are responsible for having determined whether the scope of our work is sufficient for your purposes. We make no representations regarding whether the procedures are sufficient for your purposes. Should we have performed additional procedures, other matters might have come to our attention that we would have reported to you.

This report should not be taken to supplant any other enquiries and procedures that may be necessary to satisfy your requirements.

The services did not constitute an audit of any kind.

We presented a number of findings to you during the course of the Services. Some of these findings resulted in changes you made to the financial model, others were not changed. We have relied on your responses. This report is provided expressly on the condition that you acknowledge that we are entitled to rely on your representations.

We do not provide any opinion on the accuracy or reasonableness of the assumptions explicitly or implicitly contained in the Model.

Our procedures were performed solely in respect of the Model using the base case assumptions. Consequently, and having regard to the various limitations that any model will have, additional or different issues may arise if the procedures were to be applied to a model under a different set of assumptions.

The Services were not designed to and are not likely to have revealed fraud or misrepresentation by the Queensland Competition Authority. Accordingly, we cannot accept responsibility for detecting fraud (whether by management or by external parties) or misrepresentation by the management of the Queensland Competition Authority.

There will usually be differences between the forecast and actual results, because events and circumstances frequently do not occur as expected.

We have no responsibility to update this report for events and circumstances occurring after the date of this report. We have no responsibility for changes made to the Model.

We have not provided advice concerning the ability of the Model to incorporate future events.

The Model incorporates the use of complex numerical techniques. Accordingly, we recommend that the Model is operated by a user with intimate knowledge of their workings and underlying assumptions.

This report is provided solely for your exclusive use and solely for the estimation of the recommending prices for each of Seqwater's nine irrigation schemes for 2013-14 to 2016-17. This report is not to be used for any other purpose, recited or referred to in any document, copied or made available (in whole or in part) to any other person without our prior written express consent. We accept no duty, responsibility or liability to any other party in connection with this report or this engagement.

Yours sincerely

A solid black rectangular box used to redact the signature of Mark Ingham.

Mark Ingham  
Partner  
Deloitte Touche Tohmatsu

## **Appendix 1**

### **Exceptions in Relation to the Logic and Structure of the Model Calculations**

**Exceptions in Relation to the Logic and Structure of the Model Calculations**

No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
1	Central Lockyer	G55	Distribution Losses	This formula refers to the distribution loss usage in the "Morton Vale" worksheet. Please confirm that this is intended.	This is correct. Distribution losses are applicable to the Morton Vale Distribution Scheme and are calculated as being proportional to the Morton Vale usage.	Accepted based on client comment.
2	Central Lockyer, Morton Vale, Lower Lockyer, Warrill Valley, Logan River, Central Brisbane River, Cedar Pocket, Mary Valley, Pie Creek, Corporate Totals	H93:AG95	Fixed Electricity	These formulae refer to the escalation rate for variable energy in cell G29 rather than the rate for fixed electricity in cell G28.	We have not differentiated the escalation rate for fixed and variable electricity. Therefore, the 'variable energy' rate has been applied. The 'fixed energy' escalation rate will be removed and 'variable energy' re-labeled as 'electricity'.	Accepted based on client comment.
3	Central Lockyer, Morton Vale	C314, C425	None	This label refers to 'Variable Operational Costs' but the formula refers to the R&M fixed cost in cell F182.	The label should be 'Repairs & Maintenance'. The label will be changed for Central Lockyer and Morton Vale sheets. The Label is correct for all other schemes. The label at C425 on Central Lockyer will also be changed for consistency.	Amendment tested, no further exceptions raised.
4	Morton Vale	F65:AF65	Distribution loss usage	This calculation returns a distribution loss of 41.9%. However, there is no losses recorded in rows 40, 46, 55 and 61. Please confirm that this calculation is working as intended.	This is correct. The 'Distribution loss usage' is calculated to be proportional to total usage by all customers as a percentage of total customer WAE. This percentage is then used to calculate the volume of distribution (usage) loss supplied to the Pie Creek scheme by the Mary Valley scheme in addition to actual usage by customers.	Accepted based on client comment.
5	Central Lockyer, Mary Valley	H396:AF396	Variable Electricity	This formula refers to rates in row 352 rather than variable electricity in row 351.	The variable electricity row is now to be retained as it is expected that SEQW will provide additional data for variable pumping costs. Revised Row 396 has been linked to Row 382 (variable electricity costs).	Amendment tested, no further exceptions raised.
6	Central Lockyer	I409:K409	Morton Vale High Priority Distribution Losses	This formula refers to blank cells in row 65.	The formula reference I-K65= 0 should be 'Morton Vale'!I-K65=0. This will be corrected.	Amendment tested, no further exceptions raised.
7	Central Lockyer	N461:Q461	Cost Reflective Revenue	The variable component of this formula refers to the Morton Vale irrigation usage in cell F459. The fixed component, however, does not refer to the Morton Vale WAE in cell E457. Please confirm that this formula is working as intended.	Yes, the formula is correct. The objective is to calculate the total amount of cost reflective revenue that would be attributable to this scheme. As this is a distribution scheme, the Part A revenue consists of total WAE (Central Lockyer and Morton Vale) multiplied by the Part A tariff, plus Part B revenue which has two components (volume for Central Lockyer calculated as total scheme volume less Morton Vale volume, multiplied by the Part B tariff for Central Lockyer Creek and Groundwater [Part B operational cost , plus Part B variable electricity], plus Morton Vale volume multiplied by the Part B tariff for Morton Vale [ Part B - operational cost, only]).	Accepted based on client comment.
8	Central Lockyer	E481	Previous Price Path Irrigation WAE (ML)	This cell only returns the Central Lockyer Valley WSS Previous Price Path Irrigation WAE in cell E143 of the "SEQ Assumptions" worksheet. This is inconsistent with cell G45 which refers to both Central Lockyer Valley WSS and Morton Vale Pipeline in the "SEQ Assumptions" worksheet. Please confirm that this inconsistency is intended.	This is an error and it will impact recommended prices. The intention is that the recommended prices for the bulk supply schemes that supply a distribution scheme are to be calculated using the bundled (bulk supply scheme plus distribution scheme) WAE and usage. Therefore, the previous price path WAE should include both Central Lockyer and Morton Vale WAE. Similarly, for the Past 6-year Average Usage and the Past 10-year average usage. This same errors occur in the Mary Valley scheme. The formulae in the three cells in the Central Lockyer and Mary Valley schemes will be corrected to include the relevant values for their respective distribution schemes.	Amendment tested, no further exceptions raised.
9	Central Lockyer, Morton Vale	C100	Total direct costs (incl rates + dam safety + var elect)	This label refers to 'Total direct costs (incl rates + dam safety + var elect)' but the formula in G100:AF100 of this worksheet does not include dam safety and variable electricity costs.	The title should be re-specified as Total direct costs (incl rates). This change will be made to all scheme sheets and the Corporate Totals sheet.	Amendment tested, no further exceptions raised.

**Exceptions in Relation to the Logic and Structure of the Model Calculations**

No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
10	Lower Lockyer	G58	Urban and Industrial	This formula refers to the high priority usage in cell N146 rather than the medium priority usage in cell M146 of 'SEQ Assumptions' worksheet.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
11	Lower Lockyer	H249:AF251	Various	These formulae are inconsistent with the calculation of the same items for the other schemes with the exception of Mary Valley. Please confirm that this is intended.	The formulae are correct. Both Lower Lockyer and the Mary River have MP distribution losses that are fully attributable to MP irrigation usage (in Lower Lockyer there is no urban and industrial use). Therefore, the relevant volume for variable cost allocation for irrigation is MP irrigation use plus irrigation distribution losses.	Accepted based on client comment.
12	Lower Lockyer	H244:AF247, F274, F279, F314:F320, F322:F325, H314	Various	These formulae exclude the distribution loss from sub total which is inconsistent with the calculation of the same items in the 'Mary Valley' worksheet. Please confirm that these formulae are working as intended.	For Lower Lockyer, the fixed costs attributable to MP distribution losses are recovered from all MP customers proportionately according to WAE. Therefore, the distribution WAE is excluded from the denominator when apportioning fixed costs (the fixed costs are apportioned between total MP customer WAE). However, for the Lower Mary, the MP distribution losses are fully attributable to the irrigation supply to Pie Creek. Therefore, the MP distribution losses must be allocated a share of fixed costs (included in the irrigation portion of fixed costs), which will subsequently be recovered from Pie Creek irrigators.	Accepted based on client comment.
13	Logan River	G43, G58	Urban and Industrial	This cell is blank rather than referring to cell D177 in the 'SEQ Assumptions' worksheet.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
14	Central Brisbane River	H493	Part A (Real 2013-14)	This formula refers to the Po Adjustment in cell E486. This is inconsistent with the calculation of the same item for other schemes. Please confirm that it is intended.	This is unique to Central Brisbane River. It is designed to evaluate an alternative pricing arrangement that would include a specific Po adjustment.	Accepted based on client comment.
15	Central Brisbane River	I493, F493, F494	Various	These formulae refer to the average of 'Lower Lockyer', 'Warrill Valley' and 'Logan River' which is inconsistent with the calculation of the same items for the other schemes. Please confirm that they are working as intended.	Again, this is unique to Central Brisbane. Historically, no charges have been applied to Central Brisbane irrigators. The averages for Lower Lockyer, Warrill Valley and Logan River are calculated to provide an indicative Part A tariff benchmark for Central Brisbane River.	Accepted based on client comment.
16	Central Brisbane River	I504:L504	None	This check formula returns errors due to different calculation methods for the recommended prices.	This is OK. Under the current unique approach of applying a benchmark Part A tariff for Central Brisbane, in lieu of the typical approach, there is a difference between actual revenue and the typical target revenue. The error check serves to highlight that there is a difference.	Accepted based on client comment.
17	Cedar Pocket	I498:L498	Part A (Real 2013-14)	This formula adds a \$2 annual increase to the calculated target price in cell 493 rather than comparing the calculated target price and the cost reflective price. This is inconsistent with the calculation of the same item for other schemes. Please confirm that it is intended.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
18	Mary Valley	L250:AF250, I251:AF252	Various	These formulae include the distribution loss in denominator. This is inconsistent with previous formulae in the same rows. Is this intended?	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
19	Lower Lockyer, Warrill Valley, Logan River, Central Brisbane River, Cedar Pocket and Pie Creek, Corporate Totals	H434	Volumetric Tariff - Fixed electricity	These formulae refer to the distribution loss usage in 'Morton Vale' worksheet which is inconsistent with the calculation of the same items in the 'Central Lockyer' and 'Mary Valley' worksheets. Please confirm that this is intended.	These formulae are incorrect. The denominator should reference cell F56 only, for all schemes and the Corporate Total Sheet. This will be corrected. As there is no fixed electricity in the Volumetric Tariff, there is no impact on this summary of tariff component costs.	Amendment tested, no further exceptions raised.

**Exceptions in Relation to the Logic and Structure of the Model Calculations**

No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
20	Pie Creek	H268:K268	HP Distribution Losses - Part A	This formula refers to the total fixed costs for irrigation in the 'Mary Valley' worksheet rather than the distribution losses for HP.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
21	Pie Creek	H314	Volumetric Tariff - Repairs & Maintenance	This formula refers to both HP and MP distribution loss which is inconsistent with the section title of 'Components of Medium Reliability Tariffs'.	This is OK. Irrigation customers (MP) must pay the full cost of both HP distribution losses and MP distribution losses.	Accepted based on client comment.
22	Pie Creek	K327:K328	Fixed Tariff	This formula refers to a blank cell. Please confirm that it is correct.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
23	Corporate Totals	H64:AF64	Total Usage	This formulae refers to the incorrect years in the 'Central Lockyer' worksheet.	Agreed and corrected.	Amendment tested, no further exceptions raised.
24	Corporate Totals	E126, G126, H126, E148:E151	None	These cells have no dependents and no labels. Are they redundant?	These are redundant. The values will be removed.	Amendment tested, no further exceptions raised.
25	Corporate Totals	H271:K271	Building Blocks Annual Tariff (un-smoothed)	This formula refers to blank cells in row 269.	Reference to blank cell in Row 269 is redundant and will be removed.	Amendment tested, no further exceptions raised.
26	Corporate Totals	I485:I489	Current Price Path Irrigation WAE (ML)	These check formulae return errors. Please check whether the formulae for total WAE and Usage in column E are working as intended.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
27	Tariff Summary	G4	Checks	This check formula refers to blank cells in H16:K16.	This Check is now redundant. Cells F4 and G4 will be removed.	Amendment tested, no further exceptions raised.
28	Tariff Summary	H26:K26	High Priority Supply - Per Customer Water Meter Charge	This formula refers to medium priority in 'Central Lockyer' worksheet. This is inconsistent with the section title of 'High Priority Supply' in cell B25.	This row is no longer applicable. Row 26 (HP Per Customer Water Meter Charge) will be removed. Similarly, Row 80 for Mary Valley HP Per Customer Water Meter Charge will be removed.	Amendment tested, no further exceptions raised.
29	Pie Creek Electricity	D19	Variable electricity cost (pumped)	This formula refers to a blank cell in F14.	This is a sheet from Seqwater's Pricing Model, as a source for their submitted real cost of \$55.72 per ML variable electricity cost. However, we will confirm with Seqwater the intent of a blank (zero value) at E14. In the meantime, the blank will be converted to a zero.	This worksheet has been removed. Amendment tested, no further exceptions raised.
30	SEQ Assumptions	E500:AA500	meters renewed - SKM	This row does not contain any values. This is inconsistent with the SKM meter renewed values for other schemes in row 489, 478, 467, etc. Also, this row is referred by the formulae in rows 496 and 513. Please confirm that this row is not intended to contain values.	Due to extra rows inserted at Rows 212:218, 334:347 above, original reference Row 500 has moved to Row 520. E520:AA520 have been populated with zeros.	Amendment tested, no further exceptions raised.
31	SEQ Assumptions	E729:AB729	Opening Balance	This formula does not contain the hardcoded value of 3. This is inconsistent with the opening balance calculation for the other schemes in rows 581, 618, 655, 692, 729, 766, 803, 840 and 877.	The formula should include +3, as it is designed to specify the end of the planning period for calculation of the annual rolling annuity. This will be corrected. There is no impact on results as the formula is correct for Column J729 and beyond.	Amendment tested, no further exceptions raised.
32	SEQ Opex	E56	Value for Pricing Model	This formula calculates the value for Central Lockyer using the adjustment flag for Morton Vale & Pie Creek as specified in cell I20 of 'SEQ Assumptions' worksheet. Please confirm that this is intended.	The 'SEQ Assumptions'!I20 label is now generic (where applicable) for the application of November 2112 values. The reference to Pie Creek & Morton Vale in cell I 20 will be deleted.	Amendment tested, no further exceptions raised.
33	SEQ Opex	M56	Value for Pricing Model	This cell does not refer to cell C55 which is a flag for Pie Creek and Mortonvale. This is inconsistent with the calculation for Pie Creek in cell J56.	This is correct. Labour costs for Morton Vale were based the SKM adjusted value. Note: the selection of opex costs for pricing are not based on a simple rule - each component cost for each scheme has been evaluated separately and the cost for pricing may be based on the SEQ revised November values, the SEQ revised November values adjusted by the generic reduction, the SKM recommended value, or the non-sampled cost adjusted by the generic reduction. For the Final Pricing Model we will need to provide specific details of which costs are to apply.	Accepted based on client comment.
34	SEQ Opex	E61, J61, L61	QCA generic reduction	This formula refers to the adjustment factor in cell C91 rather than the adjustment factor in cell C61.	This will be corrected.	Amendment tested, no further exceptions raised.

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No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
35	SEQ Opex	J174,M174	QCA generic reduction	These formulae refer to the adjustment factor in cell C91 rather than the adjustment factor in cell C174.	This will be corrected.	Amendment tested, no further exceptions raised.
36	SEQ Opex	E182:M183, AB182:AJ183, AT182:BB183	Materials	These formulae do not include all cost items under the category of 'Material and Other'.	Now corrected in Revised Model. No impact as all zero expenditure items.	Amendment tested, no further exceptions raised.
37	SEQ Opex	J192	Variable electricity	This formula refers to a blank cell in 'Pie Creek' worksheet.	Cell G154 in 'Pie Creek' will be re-populated. The value was inadvertently removed from the model submitted for audit.	Amendment tested, no further exceptions raised.
38	SEQ Opex	E195	QCA Base	This formula excludes the adjusted value for contractors in row 131. Please confirm that it is intended.	Agreed. Cell E131 (a zero value) should be included for consistency.	Amendment tested, no further exceptions raised.
39	SEQ Opex	Q220, Q223, Q228	Various	These formulae compare the QCA value that excludes the working capital with SEQ November value that includes the working capital. Please confirm that it is intended.	Yes, this is as intended. The comparison is between what Seqwater submitted and the QCA position. Seqwater included working capital in their submitted costs, However, QCA has excluded Working capital from its allowable costs.	Accepted based on client comment.
40	SEQ Opex	N252	Less Specific QCA adjustment items	This formula appears inconsistent with the label in cell M253. Please confirm that it is working as intended.	Cell N252 refers to the original value of unsampled items for which QCA has subsequently adopted a different value. The label will be re-worded 'Less original value of items subject to Specific QCA adjustment'.	Accepted based on client comment.
41	SEQ Renewals Expenditure	AS43	Real Forecast Expenditure	This formula refers to a blank cell in AJ43.	Corrected total for 2034-36 included at AI43	Amendment tested, no further exceptions raised.
42	SEQ Renewals Expenditure	J255, J297, J339, J381, J423, J507, J549, J591, J636,L636:AI636, J637	Various	These cells return #REF errors.	The reference source was inadvertently removed as redundant data from '2007-13 Renewals' sheet. The source data will be re-instated and re-linked. Not critical as these values are used for reference purposes only.	Amendment tested, no further exceptions raised.
43	SEQ Renewals Expenditure	K649	QCA/SKM Adjustments	This formula excludes the difference of 'Deduct Prudent and Efficient (real)' and 'Add back Prudent and Efficient (real)' in cells K616 and K629. This is inconsistent with the nominal formula in K650 which refers to the nominal values for these items. Please confirm that this is intended.	This is an inconsistency and will be corrected.	Amendment tested, no further exceptions raised.
44	SEQ Renewals Expenditure	I729	Total Adjustments	This formula does not include a nominal adjustment to extrapolated sample. This is inconsistent with the real total adjustment calculation in I728. Please confirm that it is intended.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
45	2007-13 Renewals	D73	Total All Service Contracts	This rate argument in this formula refers to a blank cell in K60. Also, the values argument excludes in value for the 2012-13 period in cell K73.	This will be corrected.	Amendment tested, no further exceptions raised.
46	2007-13 Renewals	D87:K87	Central Brisbane River WSS	This formula refers to a blank cell in D310 rather than the closing balance in D317.	This will be corrected.	Amendment tested, no further exceptions raised.
47	2007-13 Renewals	E107	WACC rate - pre tax - real	This formula calculates the real WACC using the nominal WACC in D6 in 'SEQ Assumptions' worksheet rather than the nominal WACC in E106.	Cell E107 will be re-labeled 'SEQW Model WACC', as this is the rate applied by SEQW in their original model. This rate is used to replicate SEQW's calculations. The WACC at D6 on the 'SEQ Assumptions' sheet is used for all QCA calculations.	Accepted based on client comment.
48	2007-13 Renewals	K137, K170, K203, K236, K269, K335	Deduct Projects for Adjustments (original value)	These formulae refer to blank cells.	These formulae are now redundant will be removed and replaced by zero.	Amendment tested, no further exceptions raised.
49	2007-13 Renewals	G141, G240	Generic Adjustment	These formulae contain a hardcoded value 0.04 which is inconsistent with adjacent years' formulae in the same row. Please confirm that this is intended. If so, consider having the hardcoded 0.04 as a single assumption in an assumption worksheet and linking that assumption through to these cells.	No generic adjustment is to apply to these two cells now (recent decision), so these formulae have been adjusted.	Amendment tested, no further exceptions raised.



**Exceptions in Relation to the Logic and Structure of the Model Calculations**

No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
50	2007-13 Renewals	Q141, Q240	Total of Adjustments	These formulae refer to 'SEQW Nov Adjustments to Renewals'. This is inconsistent with adjacent years' formulae.	This is OK. The 2008-09 values for Central Lockyer and Warrill Valley are treated differently as the QCA has accepted some expenditure as allowable (for all other schemes no expenditure has been deemed allowable. Therefore, the total adjustments for these two schemes is calculated as the generic adjustment on the allowed expenditure plus the balance of the April expenditure not allowed.	Accepted based on client comment.
51	2007-13 Renewals	G145, G244	Adjusted Total	These formulae do not refer to the capital cost efficiency adjustments in G120. This is inconsistent with adjacent years' formulae in the same row.	Treatment of Central Lockyer and Warrill Valley are different as these two schemes have allowable expenditure in 2008-09 (see comment above). As such, these two schemes are exceptions and have specific formulae.	Accepted based on client comment.
52	2007-13 Renewals	L432	SEQW adjustments	This formula excludes the negative value in G432. Please confirm that this is intended.	This is OK. This is the difference between SEQW April and November expenditures for all years except 2008-09. For 2008-09, QCA has allowed only \$45,598, so the difference is a QCA adjustment, not an SEQW adjustment. The cell will be labeled 'Total SEQW Adjustments.'	Accepted based on client comment.
53	2007-13 Renewals	G439	Generic Adjustment	This formula refers to 'SEQW Nov Adjustments to Renewals' in cell G233 for Warrill View and in cell G134 for Central Lockyer. This is inconsistent with the adjacent years' formula. Please confirm that this is intended.	This is OK. Total expenditure for 2008-09 is excluded for all schemes except Central Lockyer and Warrill Valley, for which some expenditure is allowed. For Central Lockyer and Warrill Valley, the portion of expenditure allowed is subject to the generic adjustment in included. However, to calculate the amount excluded in 2008-09 it is necessary to add the difference between what Seqwater submitted in April 2012 and the value allowed.	Accepted based on client comment.
54	2007-13 Renewals	M427	Total of 2011-13	This formula excludes the renewals expenditure under 2011.	The intention is to add the values for 2011-12 and 2012-13. For clarity, the cell label will be changed to 'Total 2012 & 2013'.	Amendment tested, no further exceptions raised.
55	2007-13 Renewals	M431:N435	Adjustment	This table adds adjustment items for different financial years.	Additional labeling will be included to identify values by specific years.	Amendment tested, no further exceptions raised.
56	2001-06 Renewals	E58:J58	Unbundled Total	This formula refers to the nominal value in cell E46 rather than the real value in cell E45.	Corrected. No impact as Total for information only.	Amendment tested, no further exceptions raised.
57	Mary Ann Renewals 06-11	X116	None	This check formula refers to a blank cell in X97.	Cell X97 will be populated.	Amendment tested, no further exceptions raised.
58	Ch 6 - Total Operating Costs	I119:I120	Sub Total	This check formula for "Repairs and Maintenance" refers to "Direct Labour" items.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
59	Ch 6 - Total Operating Costs	H113:H115	SKM Adjust	These formulae refer to the "QCA Materials & Other Adjustments (2012-13)" rather than the "SKM Materials & Other Adjustments (2012-13)" which is inconsistent with the title in cell H102.	This will be corrected. No impact as values in correct source cells (SKM) are identical to current (QCA) cell reference.	Amendment tested, no further exceptions raised.
60	Ch 6 - Total Operating Costs	B125:F137	Table 6.6: Direct Operating Cost Sample Applicable to Unsampled Costs (2012-13 \$'000)	This table excludes the repair and maintenance costs for Central Lockyer Valley. Please confirm that this is intended.	The SKM sample for Central Lockyer was intentionally excluded for the purpose of this Table as the sampled value was subsequently found to include a large anomalous value.	Accepted based on client comment.
61	Matt's Tables	D87:E87	Fixed (Part C)	This formula refers to the bundled price (Part A + C) which is inconsistent with the label.	The Label will be changed to reflect the 'Bundled Tariff'.	Amendment tested, no further exceptions raised.
62	Matt's Tables	D107, E107	Fixed (Part C)	These formulae include the Part A cost for Mary Valley in cell D107 which is inconsistent with the label.	The Label will be changed to reflect the 'Bundled Tariff'.	Amendment tested, no further exceptions raised.
63	Matt's Tables	N395:Q395	None	This formula refers to a blank cell in N433. Also, consider giving these cells labels.	Redundant cells. These will be removed.	Amendment tested, no further exceptions raised.
64	Matt's Tables	E411:H411	- SEQW April Direct Opex	This formula refers to a blank cell in N433.	N433 is a redundant cell. The reference to N433 will be removed.	Amendment tested, no further exceptions raised.

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No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
65	Matt's Tables	N411:Q411	Total Revenue (smoothed)	The label suggests that the values in these cells should equal to the values in the row above, while the values do not equal. Please confirm that this is correct.	The NPV of Total Revenue (smoothed) should equal NPV of MAR. An NPV for Total Revenue (smoothed) will be included together with an internal check for the required equality. The Real WACC at N399 will be calculated using the CPI (as the 2 decimal rate does not provide an exact equality).	Accepted based on client comment.
66	Matt's Tables	B420	QCA Reduction in April Non-Direct Costs	The label in this cell is inconsistent with the formula in cells E420:H420 which refers to 'SEQW November Non-Direct Opex' in row 413 rather than 'SEQW April Non-Direct Opex' in row 412.	Cell B420 will be re-labelled with November in lieu of April.	Amendment tested, no further exceptions raised.
67	Matt's Tables	D590:G590, D594:G594	Part A	These formulae refer to the Part B cost in the 'Central Lockyer' worksheet which is inconsistent with the label.	The formulae will be corrected.	Amendment tested, no further exceptions raised.
68	Angus Ch 7	E185:F186	Fixed (Part C)	This formula excludes the Central Lockyer Valley cost in rows 180:181 which is inconsistent with adjacent formulae. Please confirm that this is intended.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
69	Angus Ch 7	E190:F190	Volumetric (Part B + D)	This formula refers to the bundled price 'Part A + C' in the tariff summary worksheet which is inconsistent with the label in cell B189.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
70	Angus Ch 7	L364:M364	Irrigation Only Customer WAE	This formula refers to 'Medium Priority Share of MAR' rather than the irrigation only cost which is inconsistent with the label in L359.	This formula is OK. The costs for medium priority are predominantly for irrigation, so the MP totals are used to identify costs applicable to irrigation.	Accepted based on client comment.
71	Table 6.5	J10:M10, J12:M12, J19:M19, J55:M55, J57:M57, J64:M64, J66:M66, J73:M73, J75:M75, J91:M91, J93:M93	Fixed	These formulae exclude the high reliability costs. Please confirm that this is intended.	The formulae are OK. This is the cost-reflective price for MP supply (excluding HP distribution losses). Distribution losses are costed separately and included as a cost to the Distribution Scheme. That is, the bundled tariff consists of the tariff for bulk MP supply plus the distribution tariff ( which is based on the cost of distribution losses plus the distribution system costs).	Accepted based on client comment.
72	Table 6.5	C19:H19,C21:H21	Fixed	These formulae refer to blank cells in the Central Lockyer worksheet.	The cells on the Central Lockyer sheet will be populated with zeros.	Amendment tested, no further exceptions raised.
73	Central Lockyer, Mary Valley	N426, P426	Electricity	These formulae refer to a blank cell in cell F435.	Rows 435 will be labeled 'Variable electricity' and the blank cells at F435 will be populated with zeros.	Amendment tested, no further exceptions raised.
74	Central Lockyer, Morton Vale, Lower Lockyer, Warrill Valley, Logan River, Central Brisbane River, Cedar Pocket, Mary Valley, Pie Creek, Corporate Totals	G34:AF34, G74:AF74, G173:AF173	Various	This hardcoded model start year may not be robust if assumptions were to change. Consider having a model start year as a single assumption in an assumption worksheet and linking that assumption through to these cells.	Agreed. This will be corrected by including a 'Start Year' in the 'SEQ Assumptions' sheet and linking G34, G74 and G173 on each scheme sheet to this assumption.	Amendment tested. No further exceptions raised.
75	Central Lockyer	F309, G126, N300:Q301	None	These cells have no dependents and no labels. Are they redundant?	Yes. The G126 values in these cells will be removed from all scheme sheets and the Corporate Total Sheet. The F309 and N300-Q301 values will be removed from Central Lockyer.	Amendment tested. No further exceptions raised.
76	Central Lockyer	G60	Irrigation	This formula refers to both the Central Lockyer and Morton Vale usage in the "SEQ Assumptions" worksheet. Please confirm that this is intended.	Yes. The usage values in the 'SEQ Assumptions Sheet' are for each individual scheme. As Central Lockyer also supplies water to Morton Vale, a distribution scheme, the total volume supplied by Central Lockyer includes Morton Vale. A similar arrangement applies for Mary Valley, which supplied water to Pie Creek.	Accepted based on client comment.

**Exceptions in Relation to the Logic and Structure of the Model Calculations**

No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
77	Central Lockyer, Morton Vale, Lower Lockyer, Warrill Valley, Logan River, Central Brisbane River, Cedar Pocket, Mary Valley, Pie Creek, Corporate Totals	Row 66, Row 256	Irrigation	Consider repeating the model timeline in this row so that this section is consistent with the other sections in this worksheet.	Agreed. This change will be made to all schemes and the Corporate Total sheet.	Amendment tested. No further exceptions raised.
78	Central Lockyer, Morton Vale, Lower Lockyer, Warrill Valley, Logan River, Central Brisbane River, Cedar Pocket, Mary Valley, Pie Creek, Corporate Totals	G106	None	This check formula only refers to one cell. Is it redundant?	Yes. This cell is redundant and will be deleted from each scheme sheet.	Amendment tested. No further exceptions raised.
79	Central Lockyer, Morton Vale, Lower Lockyer, Warrill Valley, Logan River, Central Brisbane River, Cedar Pocket, Mary Valley, Pie Creek, Corporate Totals	H128:AF131	Various	These working capital calculations have no dependents. Are they redundant?	Yes. These cells are redundant and will be deleted from each scheme sheet and the Corporate Total sheet.	Amendment tested. No further exceptions raised.
80	Central Lockyer, Morton Vale, Lower Lockyer, Warrill Valley, Logan River, Central Brisbane River, Cedar Pocket, Mary Valley, Pie Creek, Corporate Totals	H202:AF202	None	This check formula returns values for the model user to compare with the row above. For ease of use, consider changing these cells to an "OK", "Error" check so that they are consistent with other checks in this worksheet.	Agreed. This will be changed in all scheme sheets and the Corporate Total sheet as suggested.	Amendment tested. No further exceptions raised.
81	Central Lockyer, Morton Vale, Lower Lockyer, Warrill Valley, Logan River, Central Brisbane River, Cedar Pocket, Mary Valley, Pie Creek, Corporate Totals	H207:AF207	Revenue Offsets	This formula repeats the calculation in row 195. Consider changing this row so that it directly refers to row 195.	Change in formulae for Row H207:AF 207 for all schemes.  While changes were made to each of the Scheme sheets, the change is not required on the Corporate Totals sheet, as the values on the Corporate Totals sheet are based on the sum of values on each Scheme sheets. Therefore, the change is not applicable to the Corporate Sheet.	Amendment tested. No further exceptions raised.  Accepted based on client comment.
82	Central Lockyer	F309	Components of Medium Reliability Tariffs	This cell has no dependents. Is it redundant?	Yes. This value is redundant and will be removed	Amendment tested. No further exceptions raised.
83	Central Lockyer	E456:E457, F458:F459	None	These cells respectively represent the attributed WAE and usage for Central Lockyer and for Morton Vale. Consider giving them separate labels.	Agreed. They will be re-labeled accordingly.	Amendment tested. No further exceptions raised.
84	Morton Vale	E51	Estimated Usage	This cell has no dependents. Also, the formula is inconsistent with the label in cell B51. Consider removing this cell or giving it another label.	The values in cells E36-64 are now redundant and will be removed.	Amendment tested. No further exceptions raised.
85	Morton Vale	G126, F272	None	These cells have no dependents. Are they redundant?	Yes. These are redundant and will be removed.	Amendment tested. No further exceptions raised.
86	Morton Vale	E321	Renewals Annuity - Water Meter Replacements	This calculation in this cell is identical to that in cell F321. This cell has no dependents. Is it redundant?	Yes. It is redundant and will be removed.	Amendment tested. No further exceptions raised.

**Exceptions in Relation to the Logic and Structure of the Model Calculations**

No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
87	Central Lockyer, Morton Vale, Lower Lockyer, Warrill Valley, Logan River, Central Brisbane River, Cedar Pocket, Mary Valley, Pie Creek, Corporate Totals	H225:AF225, H376:AF376	Various	Consider giving these formulae labels.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
88	Lower Lockyer, Central Brisbane River	N2:Q3	None	These cells have no dependents and no labels. Are they redundant?	Yes. These are redundant and will be removed.	Amendment tested. No further exceptions raised.
89	Lower Lockyer	H272:K272, H287:K287	None	These hardcoded values have no labels and have no dependents. Are they redundant?	Yes. These are redundant and will be removed.	Amendment tested. No further exceptions raised.
90	Central Brisbane River, Cedar Pocket	E485	Annual increase per ML	This hardcoded annual increase input is inconsistent with the same cell in the other scheme worksheets which refer to the 'SEQ Assumption' worksheet. This may not be robust if assumptions were to change.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
91	Cedar Pocket	J492:L492, J495:L495	Various	For ease of use, consider changing the formulae in these check cells to return an "OK", "Error" output so that they are consistent with other checks in this worksheet.	Agreed. Changed as suggested	Amendment tested. No further exceptions raised.
92	Mary Valley	F19, G127	None	These cells have no labels and have no dependents. Are they redundant?	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
93	Mary Valley	H289:K289	Reconciliation Check (NPV equal)	This formula does not refer to the volumetric tariff (electricity) in row 284 which currently contains zero values. This may not be robust if the values in row 284 were to change.	Agreed. Formula changed to reference Total Part B (including electricity).	Amendment tested. No further exceptions raised.
94	Pie Creek	E199	MEDIUM - MAXIMUM REVENUE REQUIREMENT (MAR)	This formula refers to blank cells. Is it redundant?	This cell is redundant and will be removed.	Amendment tested. No further exceptions raised.
95	Pie Creek	H270, F272	None	These cells have no dependents and no labels. Are they redundant?	These cells are redundant and will be removed.	Amendment tested. No further exceptions raised.
96	Corporate Totals	E93	None	This formula refers to a blank cell. Also, it has no dependents and no label. Is it redundant?	This cell is redundant and will be removed. Cells E81, E84 and E96 are also redundant and will be removed.	Amendment tested. No further exceptions raised.
97	Corporate Totals	E171:E172	None	These formulae exclude the last two periods' values in row AE and row AF.	These totals were used as an early internal cross-check with values assessed by our consultants SKM. The data in Rows 171 and 172 and Cell E173 are now redundant and will be removed.	Amendment tested. No further exceptions raised.
98	All	All	Various	Consider running a spell check on each worksheet in the model.	Agreed. This will be done.	Accepted based on client comment.
99	SEQ Assumptions	I139, D152, F152:G152, D184:D185, G184, K184, S200:T200, S202, H173:H174, H177:I177, H179:I179, H181:I181, D184:D185, G184, K184, S200:T200, S202	None	These formulae have no dependents and no labels. Are they redundant?	These cells are redundant and will be removed.	Amendment tested. No further exceptions raised.
100	SEQ Assumptions	S189:T190, S196:T197	Various	These formulae do not include the blank cells in the distribution losses WAE table which may not be robust if the inputs in the distribution losses WAE table were to change. Consider including the distribution losses WAE in these formulae.	Agreed. The formulae will be modified.	Amendment tested. No further exceptions raised.

**Exceptions in Relation to the Logic and Structure of the Model Calculations**

No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
101	SEQ Assumptions	D519, I138, O170, O174, H175, O177, O179, O181	None	For ease of use, consider labeling these cells.	Agreed. Labels added.	Amendment tested. No further exceptions raised.
102	SEQ Assumptions	row 527	None	Consider repeating the model timeline in this row so that this section is consistent with the other sections in this worksheet.	Now corrected in Revised Model. Timeline included at Row 550 (as extra rows have been inserted in sections above).	Amendment tested, no further exceptions raised.
103	SEQ Assumptions	E573:AB573, E581:AB581, E610:AB610, E618:AB618, E647:AB647, E655:AB655, E685:AB685, E692:AB692, E721:AB721, E758:AB758, E766:AB766, E795:AB795, E803:AB803, E832:AB832, E840:AB840, E869:AB869, E877:AB877	Opening Balance	This formula compares the period counter with the annuity term plus a hardcoded value of 3. Please confirm the formula is working as intended. If so, consider having the hardcoded value 3 as a single assumption in an assumption worksheet and linking that assumption through to these cells.	The formulae are correct. The hardcoded 3 in the formula is designed to specify the end of the planning period for calculation of the annual rolling annuity. Agreed that the hardcoded 3 should be replaced with a single reference assumption. This has been done by including an assumption at D12 to specify the number of extra years to be included in the planning period for the annual rolling annuity.	Amendment tested. No further exceptions raised.
104	SEQ Opex	R45:T45, R46:R47, R75:T75, R76:R77, E89, R101:T101, R102:R103, R122:T122, R123:R124, R158:T158, R159:R160	Various	For ease of use, consider giving these cells labels.	Label 'Adjustment attributable to SKM' has been added.	Amendment tested, no further exceptions raised.
105	SEQ Opex	AL45	Total Labour Costs	This cell has no label and may appear redundant to a model user who could change or delete it. Consider giving it a label to avoid accidental deletion.	The values in Column AK45:184 are now redundant and have been deleted.	Amendment tested. No further exceptions raised.
106	SEQ Opex	AC46	Value of SKM Sampled Items	This formula includes a hardcoded value of 1.04. This may not be robust if assumptions were to change. Consider making the 1.04 an assumption in an assumption worksheet and linking that assumption through to this cell.	Agreed. This cell is for comparison purposes only and is escalated 4.0% applicable to labour. The escalation rate has been linked to 'SEQ Assumptions'!D16, the escalation rate for labour.	Amendment tested. No further exceptions raised.
107	SEQ Opex	P47:P48, AL47:AM48, R53, O58, L59, AL67, O67, BD67, O71, AL71, O88:P88, R83, R109, O114:P114, O135:P135, O158:P158, AL154, AL158, AL160:AL161, AL165:AN166, AU161	Various	These cells have no dependents and no labels. Are they redundant?	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
108	SEQ Opex	L56	Value for Pricing Model	This formula does not refer to QCA Labour Adjustments in cell L48 and the generic saving in cell L53. This is inconsistent with adjacent formulae in this row. Even though L48 and L53 contain zero values, this formula may not be robust if the inputs were to change.	This is OK. The adopted labour cost for Cedar Pocket was the value sampled by SKM without any adjustment. Refer to the Note in 'Priority'!F41 (query No 33) about the basis for selecting costs.	Accepted based on client comment.
109	SEQ Opex	C160	None	This formula has no dependents and no labels. Is it redundant?  If not, consider having the hardcoded value 10,469 as an assumption in an assumption worksheet and linking that assumption through to this cell. Also consider giving it a label.	This cell is redundant and will be removed.	Amendment tested. No further exceptions raised.

**Exceptions in Relation to the Logic and Structure of the Model Calculations**

No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
110	SEQ Opex	P165:P166, Q165:Q166, R166, AC168, AZ186, E195, I195:I197, J195:K197, AZ196, BE201, AZ205, BE212, BE214, BE216, BH212, AZ221, E226:E227	Various	These cells have no dependents and no labels. Are they redundant?	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
111	SEQ Opex	AL185, AN185, AL188, AN188, AN191, AL186, BF188, E200:M200, P203, P216:Q216, E244	Total	For ease of use, consider giving these cells labels.	Labels added in Revised Model	Amendment tested, no further exceptions raised.
112	Non-Direct Re-Alloc	L44:P44	None	This formula has no dependents and no labels. Is it redundant?	Label added.	Amendment tested. No further exceptions raised.
113	Non-Direct Re-Alloc	O103, O105, R103	Various	For ease of use, consider giving these cells labels.	Labels added.	Amendment tested. No further exceptions raised.
114	SEQ Renewals Expenditure	P43, T43, X43, AB43, AF43	Various	For ease of use, consider giving these cells labels.	Labels added.	Amendment tested. No further exceptions raised.
115	SEQ Renewals Expenditure	K39:K41	None	This calculation in these cells is identical to that in cell C39:C41. These cells have no dependents and no labels. Are they redundant?	These cells are redundant and will be removed.	Amendment tested. No further exceptions raised.
116	SEQ Renewals Expenditure	M44, M45:P45	None	These cells have no dependents and no labels. Are they redundant?	These cells are redundant and will be removed.	Amendment tested. No further exceptions raised.
117	SEQ Renewals Expenditure	B719, B721, B723, C713, D713, C717	None	For ease of use, consider giving these cells labels.	B19:23 are redundant and will be removed. Labels added to C713, C717 and D713.	Amendment tested. No further exceptions raised.
118	SEQ Renewals Expenditure	H241:H244, K692, D695, D728:E728, E58:K58	None	These cells have no dependents and no labels. Are they redundant?	Now corrected in Revised Model	Amendment tested. No further exceptions raised.
119	SEQ Renewals Expenditure	D94:E98	Various	These cells do not contain formulae. This is inconsistent with adjacent formulae for other schemes.	This is OK. These NPV values are only required for the combined bulk/distribution schemes. The NPV is used for the "un-bundling" of the 2006 ARR Balances for the Central Lockyer and Mary River schemes on the '2001-06 Renewals' sheet.	Accepted based on client comment.
120	SEQ Renewals Expenditure	L744:L745	Various	This formula appears inconsistent with the labels on cells G744:G745. Also, these cells have no dependents. Are they redundant?	These cells are redundant and will be removed.	Amendment tested. No further exceptions raised.
121	2007-13 Renewals	AI107, AI114, E123:K123, E156:K156, L174, E189:K189, L207, E222:K222, E255:K255, L273, E288:K288, L306, E321:K321, L339, E354:K354, L372, E387:K387, L405, F474:K474	None	For ease of use, consider giving these cells labels.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
122	2007-13 Renewals	Y107, Y114, E122:I122, L129, L134:L135, L141, L152, L162, L167:L168, L185, L195, L200:L201, L218, L228, L233:L234, L240, L251, L261, L266:L267, L284, L294, L299:L300, L317, L327, L332:L333, L350, L360, L365:L366, L383, L393, L398:L399, L416, E421:K421	None	These cells have no dependents and no labels. Are they redundant?	Y107, Y114 retained for reference purposes. E122:Y122 are redundant and will be removed. L129, L134:L135 to L393, L398:L399 are used for reference purposed and will be labeled. E421:K421 will be labeled.	Amendment tested. No further exceptions raised.

**Exceptions in Relation to the Logic and Structure of the Model Calculations**

No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
123	2007-13 Renewals	O141:P141, O174:V174, O207:V207, O240:P240, O273:V273, O306:V306, O339:V339, O372:V372, O405:V405	Generic Adjustment	Consider adding a timeline for these cells.	Time-lines added.	Amendment tested. No further exceptions raised.
124	2001-06 Renewals	P67:Q69, P112:Q114	- Opening Balance	For ease of use, consider giving these cells labels for their corresponding schemes.	Labels will be added.	Amendment tested. No further exceptions raised.
125	Mary Ann Renewals Expend 13-36	D105:AB105, D98:J98, Q98:W98, Q116:X116, B24:F24, B49:F49	None	For ease of use, consider changing the formulae in these check cells to return an "OK", "Error" output so that they are consistent with other checks in this worksheet.	Formulae will be change as suggested.	Amendment tested. No further exceptions raised.
126	Mary Ann Renewals 06-11	AA95:AD95	None	These cells have no dependents and no labels. Are they redundant?	These cells are redundant and will be removed.	Amendment tested. No further exceptions raised.
127	Mary Ann Renewals Annuity	D132:K132, M22, S22:V22, S41:V41, M42, L88:O88, AC88:AF88	Check	This check formula returns values for the model user to compare with the row above. For ease of use, consider changing these cells to an "OK", "Error" check so that they are consistent with other checks in this worksheet.	Formulae will be change as suggested.	Amendment tested. No further exceptions raised.
128	CH 5 Renewals	C51:E51, C71:E71, C92, C141:J141, C163,E163:G163, I170:I175,I177:I178,I183:I184, C181:F181, I229:I234,I236:I237,I239, C240:F240, C261, C404:F404, C424:F424	None	For ease of use, consider changing the formulae in these check cells to return an "OK", "Error" output so that they are consistent with other checks in this worksheet.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
129	Ch 6 - Total Operating Costs	C25:F25,H25,L25:O25,Q25, U25:X25,Z25, C67, C74, C79, C83:E83, C97:E97, I103:I108, C155:F155, C174:G174, C192:F192, C198:F198, C219:G219, C239, C289:G289, C344:G344, C399:G399	None	For ease of use, consider changing the formulae in these check cells to return an "OK", "Error" output so that they are consistent with other checks in this worksheet.	Formulae will be change as suggested.	Amendment tested. No further exceptions raised.
130	Ch 6 - Total Operating Costs	O12:O18,O21:O22, Q12:Q22, X12:X18,X21:X22, Z12:Z18,Z21:Z22	Various	These formulae compare the opex including working capital (SEQW April and SEQW November) and the opex excluding working capital (QCA Summary). Please confirm that this is intended.	As intended. QCA has not allowed working capital, but the comparisons are based on the total costs (including working capital) submitted by SEQW.	Accepted based on client comment.
131	Ch 6 - Total Operating Costs	D113:E115	Various	These formulae include fixed electricity but exclude variable electricity. Please confirm that this is intended.	As intended. SKM did no review the variable electricity costs.	Accepted based on client comment.
132	Matt's Tables	H9:H15,H17:H18, H276:K276, H279:K279, N392:Q392	Various	For ease of use, consider changing the formulae in these check cells to return an "OK", "Error" output so that they are consistent with other checks in this worksheet.	Now corrected in Revised Model	Amendment tested, no further exceptions raised.
133	Matt's Tables	E49:50, E53:E56, E59	Cedar Pocket Dam	These formulae do not include "Part B - Volumetric Tariff (electricity)". This may not be robust if the assumptions were to change.	Formulae references will be changed to rectify this matter.	Amendment tested. No further exceptions raised.
134	Matt's Tables	D83:G83, D84:G84, D103:G104, A437	None	For ease of use, consider giving these cells labels.	Label added in Revised Model	Amendment tested, no further exceptions raised.

**Exceptions in Relation to the Logic and Structure of the Model Calculations**

No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
135	Matt's Tables	N414	None	This cell has no dependents and no labels. Is it redundant?	This cell is redundant and will be removed.	Amendment tested. No further exceptions raised.
136	Matt's Tables	F483:I483	None	Consider repeating the model timeline in this row so that this section is consistent with the other sections in this worksheet.	Timeline will be added.	Amendment tested. No further exceptions raised.
137	Angus Ch 7	C164:D164, N164:O164	Check	For ease of use, consider changing the formulae in these check cells to return an "OK", "Error" output so that they are consistent with other checks in this worksheet.	Checks will be changed as suggested.	Amendment tested. No further exceptions raised.
138	Angus Ch 7	V325:Y325, V327:Y327, V330:Y330, V332:Y332, V340:Y340, V342:Y342	None	For ease of use, consider giving these cells labels.	These cells are now redundant and will be removed.	Amendment tested. No further exceptions raised.
139	Angus Ch 7	J184, J204	Fixed (Part C)	These formulae contain hardcoded values of 11. For ease of use, consider having the hardcoded 11 as a single assumption in an assumption worksheet and linking that assumption through to these cells.	Formulae will be linked to 'SEQ Assumptions!D81'	Amendment tested. No further exceptions raised.
140	Angus Ch 7	C245:E245	Distribution	This formula refers to blank cells.	Formulae are redundant and will be removed.	Amendment tested. No further exceptions raised.
141	Table 6.1 All Sectors	N14, O14, Q142:Q143, N14, O14, N24, O24, N34, O34, N44, O44, N54, O54, N64, O64	None	For ease of use, consider giving these cells labels.	Column headings will be added.	Amendment tested. No further exceptions raised.
142	Table 6.1 All Sectors	P31	Lower Lockyer	The scheme's label is missing in this cell.	Label will be added.	Amendment tested. No further exceptions raised.
143	Table 6.2 Medium Priority	P61	None	Scheme label missing in this cell.	Label will be added.	Amendment tested. No further exceptions raised.
144	Table 6.2 Medium Priority	Q19:T19, Q29:T29, Q39:T39, Q49:T49, Q59:T59, Q69:T69, Q79:T79, Q89:T89, Q99:T99, Q110:T110	Check	For ease of use, consider changing the formulae in these check cells to return an "OK", "Error" output so that they are consistent with other checks in this worksheet.	Checks will be change as suggested.	Amendment tested. No further exceptions raised.
<b>Round 2 Testing Exceptions - AUDIT VERSION - Revised 20 Mar 2013 - DRAFT FINAL REPORT (1).xslm - 26 March 2013</b>						
145	SEQ Opex	AC46	Check - Sampled plus Unsampled	This formula refers to the escalation rate 'Labour - for 2014-15 to 2016-17' in cell D16 rather than 'Labour - for 2013-14' in cell D15 of the 'SEQ Assumption worksheet', which is inconsistent with this table's title 'Direct OPEX for Irrigation by Scheme (budgeted 2012/13)' in cell B7.	This cell is redundant and will be removed.	Amendment tested, no further exceptions raised.
146	SEQ Opex	S251	Total SEQ (April)	This formula refers to the 'QCA Adjusted' values which is inconsistent with its label.	An additional label has been added to define this calculation as 'Summary of SKM Sampling of Direct Costs', which is based on the SEQW (April) total. A cross-check to the SEQW total has also been included.	Amendment tested, no further exceptions raised.
147	SEQ Opex	AC284:AE294, AC298:AE308	SEQW Direct Costs (April)	These cells do not align with the labels in column Z.	This will be corrected.	Amendment tested, no further exceptions raised.
148	SEQ Renewals Expenditure	E648:F648	None	This formula refers to blank cells in row 646.	This will be corrected by applying a new formula which excludes the blank cell.	Amendment tested, no further exceptions raised.
<b>Round 2 Testing Exceptions - AUDIT VERSION - Revised 20 Mar 2013 - DRAFT FINAL REPORT (1).xslm - 27 March 2013</b>						
149	Central Lockyer	H200:AF200	Options Analysis	This formula refers to the '50/50 HUF/WAE' in cell G17 rather than the 'Working Capital % for Irrigators' in cell G18. This is inconsistent with the calculation of the same item for other schemes. Please confirm that it is intended.	The options analysis cost should be apportioned using the 50/50 HUF/WAE factor. Formulae for other schemes will be adjusted to be consistent with Central Lockyer.	Amendment tested, no further exceptions raised.



**Exceptions in Relation to the Logic and Structure of the Model Calculations**

No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
150	Central Lockyer	H411:K411	SEQW High Priority Distribution Losses	This formula is identical to the formula in H412:K412 but it has a different label. Please confirm that this is intended.	Formulae in Row H412:K412 has been adjusted to accommodate a circumstance where the split between SEQW and irrigators is different to 50/50. The labeling has also been modified.	Amendment tested, no further exceptions raised.
151	Central Lockyer	R431	Check	This check formula returns an error.	Formulae in Cells Q427:437 (Q427-429) have been modified to reflect new apportionment between SEQW and irrigators.	Amendment tested, no further exceptions raised.
152	Morton Vale	K322	Renewals Annuity - Water Meter Replacements	This formula excludes the 'Renewals Annuity - Water Meter Replacements' for Central Lockyer which is inconsistent with adjacent formulae. This makes the check formula in cell K331 return an error.	The formula has been corrected.	Amendment tested, no further exceptions raised.
153	Cedar Pocket	I509:L509	None	These check formulae return errors.	This reflects that the pricing option applied does not recover the target revenue. However, the pricing option has now been changed to be similar to be consistent with other schemes.	Amendment tested, no further exceptions raised.
154	Central Lockyer	F19, F256	None	These cells have no dependents and no labels. Are they redundant?	F19 is redundant and will be removed. F256 (F262) is an internal check and will be removed. This was originally unique for Central Lockyer.	Amendment tested. No further exceptions raised.
155	Central Lockyer	E176:E198, G176:G198, E120, G120	None	For ease of use, consider giving these cells labels.	These cells are redundant and will be removed.	Amendment tested. No further exceptions raised.
156	Lower Lockyer	N488:Q489	Various	These cells have no dependents. Are they redundant?	These are CPI escalation factors. They will be labeled.	Amendment tested. No further exceptions raised.
157	Warrill Valley	H496	years to reach cost-reflective	This formula returns a negative number which is inconsistent with the label 'years to reach cost-reflective'. Consider having the formula returning a zero value in the case of negative numbers.	Formulae have been adjusted to return zero in the event of a negative.	Amendment tested. No further exceptions raised.
<b>Final Round Testing Exceptions - DRAFT FINAL REPORT MODEL - 4 April 2013 (Final).xism - 08 April 2013</b>						
158	SEQ Renewals Expenditure	M234:AI242	None	These cells have no dependents and no labels. Are they redundant?	These cells are redundant. They were used for some internal cross-checks. They have been removed.	Amendment tested, no further exceptions raised.
159	SEQ Opex	N252, N268	None	These check formulae return errors.	An additional adjustment item for QCA March 2013 adjustments (to Fixed Electricity for Lockyer Valley) has been added to complete the reconciliation.	Amendment tested, no further exceptions raised.
160	Angus Ch 7	N168:O168	None	These check formulae return errors.	The Table is correct. However, the check total formulae have now been adjusted to reflect the Crowley Vale adjustment.	Amendment tested, no further exceptions raised.

# **Appendix 2**

## **Comments/Queries on Model Macros**

**Comments/Queries on Model Macros**

No.	Macro / Worksheet Name	Description	Response from Client	Deloitte Response
1	Macro: ARR_2006Balance()	This macro has a keyboard shortcut of 'Ctrl +z' which is also an Excel-embedded shortcut to undo an action. Consider changing the keyboard shortcut for this macro to avoid accidental activation.	Macro shortcut has been changed to 'Ctrl+g'	Amendment tested, no further exceptions raised.
2	Macro: SEQ2013ARR()	This macro conducts a series of copy and paste procedures in the '2007-13 Renewals' worksheet. The second part of each copy and paste procedure replaces a label with the word 'Forecasts' with a flag for the 7th period of the model. Consider updating the cell ranges in this macro or, if it is redundant, removing the macro.	This Macro is redundant and will be removed.	Amendment tested, no further exceptions raised.
3	Macro: Macro1()	This macro returns an error dialogue which is caused by the macro trying to goal seek a range of cells which do not contain any formula. Is this macro redundant?	This Macro is redundant and will be removed.	Amendment tested, no further exceptions raised.
4	Worksheet: 2001-06 Renewals	This worksheet does not have the 'Return to Main Menu' button on the left which is inconsistent with other worksheets.	The button will be added.	Amendment tested, no further exceptions raised.

# **Appendix 3**

## **Input Testing Exceptions**

**Input Testing Exceptions**

Note 1: An input workbook is provided for comparison ('SEQW IRRIGATION PRICES - FINAL INPUTS.xlsx').

Note 2: The comments below refer to the "DRAFT FINAL REPORT MODEL - 4 April 2013 (Final).xlsm" workbook whilst comparing with the input workbook.

No.	Worksheet	Range	Label	Description	Response from Client	Deloitte Response
1	SEQ Assumptions	D24	Electricity - 2013-14 uplift - Central Brisbane River	The 2.5% electricity escalation factor for Central Brisbane River could not be found in the input workbook provided.	The Central Brisbane River electricity escalation factor of 2.5% factor for 2013-14 was omitted from the inputs sheet. The 2.5% factor is included in the Pricing Model at D24.	Accepted based on client comment.
2	SEQ Assumptions	B231	Electricity - 2013-14 uplift - (Ex. Central Lockyer, Brisbane, & Pie Creek Pumping)	This label is inconsistent with the label in the input workbook (cell reference: B22 of 'Assumptions' worksheet) which shows "Ex. Central Lockyer & Mary River".	The data input sheet label should be amended to (Ex. Central Lockyer, Brisbane, & Pie Creek Pumping), to be consistent with the Model.	Accepted based on client comment.
3	SEQ Opex	B203:N210	Summary of Total OPEX Costs (2012/13 \$)	This table contains inconsistent items (labels) and values with the input table in the input workbook (cells reference: C39:L46 of 'Opex' worksheet).	The Inputs 'Opex' Rows C39:L46 should be updated to the values below. The values below reflect the exclusion of Non-Direct costs for the Brisbane River Flood Control Centre, an adjustment that was not reflected in the Input 'Opex' sheet provided. The values in the Model reflect this adjustment.	Amendment tested, no further exceptions raised.
4	2007-13 Renewals	G105:K117	2006 ARR Closing Balances	Cell B231 of the 'Renewals' worksheet in the input workbook provided shows "Refer to inputs at '2007-13 Renewals' G205:K116" which is an incorrect cell reference of this table.	The reference on the Inputs 'Renewals' sheet will be re-labeled to G105:K117.	Accepted based on client comment.

**Inputs - Revised Opex Sheet values for C39:L46**

Direct & Non- Direct Opex (2012/13)												
	Central Lockyer	Lower Lockyer	Logan River	Warrill Valley	Mary Valley	Central Brisbane River			Cedar Pocket	Mortonvale	Total	
QCA Adjusted Direct Opex	397,196	721,996	606,773	904,066	640,105	162,042	7,555,147	74,169	45,994		<b>11,107,488</b>	
<b>SEQW (November) Non-Direct Opex</b>	<b>190,717</b>	<b>326,327</b>	<b>273,617</b>	<b>433,678</b>	<b>315,058</b>	<b>73,122</b>	<b>5,902,015</b>	<b>36,512</b>	<b>25,645</b>		<b>7,576,692</b>	
Re-balanced Non-Direct Opex	167,285	326,735	266,419	416,267	309,753	66,328	3,322,490	35,891	22,257		4,933,425	
Excluding Po Efficiency Gain of 0%	167,285	326,735	266,419	416,267	309,753	66,328	3,322,490	35,891	22,257		4,933,425	
<b>Sub-Total (Direct + Non-Direct Opex)</b>	<b>564,482</b>	<b>1,048,731</b>	<b>873,192</b>	<b>1,320,333</b>	<b>949,858</b>	<b>228,370</b>	<b>10,877,637</b>	<b>110,060</b>	<b>68,251</b>		<b>16,040,913</b>	

## **Appendix 4**

# **Testing the Consistency of the Model Calculations to the Seqwater Irrigation Pricing Principles**

**Testing the Consistency of the Model Calculations to the Seqwater Irrigation Pricing Principles**

No.	Pricing Policy Description	Deloitte Response	Response from Client	Deloitte Response
<b>SEQW Irrigation Pricing</b>				
1	Identify target irrigation revenue requirement based on 2012-13 tariffs, indexed to 2013-14 (by 2.5%). To calculate the ‘target revenue’, the fixed (Part A) tariff is multiplied by the historic irrigation WAE and the volumetric (Part B) tariff is multiplied by average irrigation usage for last 6 years. For bulk schemes, ‘bundled’ WAE and usage are to be applied.	Model calculation is consistent with the policy described.		
2	Apply the 2013-14 cost reflective Part B tariff for the scheme and average irrigation usage for last 10 years to calculate expected revenue from usage.	Model calculation is consistent with the policy described.		
3	Solve for a 2013-14 Part A tariff, based on current irrigation WAE, to achieve the “target revenue” after deducting the revenue generated from the Part B tariff.	Model calculation is consistent with the policy described.		
4	Compare calculated Part A tariff and cost-reflective Part A tariff. If the calculated 2013-14 Part A is less than 2013-14 cost-reflective Part A, apply the calculated Part A tariff, increased annually by \$2.00 in real terms, until it reaches the cost reflective Part A tariff – if necessary, apply less than \$2.00 so the recommended Part A tariff equals the cost-reflective tariff unless it was higher to begin with.	Model calculation is consistent with the policy described.		
5	If the calculated Part A tariff is greater than the cost-reflective tariff, apply the cost-reflective Part A tariff and escalate tariffs for subsequent years by expected rate of inflation (2.5%).	<p>Model calculation of the recommended tariff indicates that where the calculated Part A tariff is greater than the cost-reflective tariff, apply the calculated Part A tariff. This is inconsistent with the pricing policy described on the left. The inconsistency is found in the final version of the model in cell I506 of the following worksheets:</p> <ul style="list-style-type: none"> <li>- Central Lockyer</li> <li>- Morton Vale</li> <li>- Lower Lockyer</li> <li>- Warrill Valley</li> <li>- Logan River</li> <li>- Cedar Pocket</li> <li>- Mary Valley</li> </ul>	Warrill Valley is the only Scheme in which the calculated Part A exceeds the cost-reflective Part A. Correcting this results in the Recommended Part A decreasing from \$21.91 to \$21.85. For consistency, the formulae for all cells will be changed to accommodate an outcome of the calculated Part A exceeding the cost-reflective Part A.	Amendment tested, no further exceptions raised.
<b>Exceptions to this Policy</b>				
6	Central Lockyer. The Recommended Part A charge is not to be applied to Creek and Groundwater irrigators until 2016-17.	Model calculation is consistent with the policy described.		

**Testing the Consistency of the Model Calculations to the Seqwater Irrigation Pricing Principles**

No.	Pricing Policy Description	Deloitte Response	Response from Client	Deloitte Response
7	<p>Central Brisbane River. In the absence of a historic prices:</p> <p>a. Apply the cost-reflective Part B; and</p> <p>b. Solve for a starting price that when increased at \$2.00 real per year, will reach the cost reflective price in 2016-17.</p>	<p>1. The current starting price of the recommended tariff (in cell I506 of the 'Central Brisbane River' worksheet in the final version of the model) of \$15 leads to the nominal tariff in 2016 -17 of \$22.61 (in cell Q506). This value does not equal to the cost reflective tariff which returns a value of \$22.71 in cell K283.</p> <p>2. The note for cell I506 refers to Part B whilst pointing to Part A. Please confirm that this is intended.</p>	<p>Central Brisbane River Part A for 2013-14 has now been changed from \$15.00 to \$15.09, so that it reaches \$21.09 (real) in 2016-17. Note, that the objective is to reach the equivalent of the 2013-14 cost-reflective Part A, in real terms, so the relevant comparator is Cell L506, rather than Cell Q506 which is in nominal values.</p>	<p>Amendment tested, no further exceptions raised.</p>
8	<p>Pie Creek. As cost reflective prices are in excess of capacity to pay, a modified volumetric tariff is to be applied. This is to be based on the Part B for bulk supply from Mary Valley plus the variable electricity cost for Pie Creek.</p> <p>Also, as a one-off arrangement for this price path, the exit fee for Pie Creek is to be based on a notional fixed tariff. This notional fixed tariff is to be calculated as the Recommended fixed tariff for Pie Creek, less the Recommended fixed tariff for bulk supply from the Mary River.</p>	<p>1. The formula for the Part B Tariff (in cell H507 of the 'Pie Creek' worksheet in the final version of the model) refers to the sub-total cost in row 291 rather than the variable electricity costs in row 290.</p> <p>2. The notional fixed tariff in cells N404:Q494 of the 'Pie Creek' worksheet is rounded to two decimal points which could reduce the termination fee. Please confirm that this is intended.</p>	<p>1. This will be corrected. No change in value as there is no other variable electricity in Pie Creek.</p> <p>2. This is intended, as the termination fee should reflect a multiple of the published price (in 2 decimals).</p>	<p>Amendment tested, no further exceptions raised.</p>
9	<p>For Morton Vale the exit fee is based on the cost-reflective fixed tariff for the Morton Vale distribution scheme.</p>	<p>Model calculation is consistent with the policy described.</p>		