

# WNR Floor and Ceiling Cost Supplementary Submission

Reconciliation of New and Old Access Pricing Model

### **Document History**

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## 1. Reconciliation of Old and New APM

#### **1.1. Introduction**

The Access Pricing Model (APM) determines revenue ceilings and floors for sections of track on the rail network. Each Section is made up from a number of smaller Segments of track. Sections within the scope of a determination are:

1.	South West Main	(SWM);
2.	Terminal Ends of SWM	(SWMterm);
3.	Eastern Goldfields Railway	(EGR);
4.	Kalgoorlie to Esperance	(SGE);
5.	Kalgoorlie to Leonora	(SGL);
6.	Collie Line	(WOR);
7.	Grain Lines	(GRN)

Throughout this document, the term *Old APM* refers to the original Access Pricing Model constructed in MS Access and MS Excel. The term *New APM* refers revised model constructed exclusively in MS Excel.

This document reconciles the transition from the Old APM to the New APM. The Old APM involved a two-stage process from Access to Excel that culminated in numerous excel outputs. The New APM is purely Excel based and designed for simplicity, auditability and transparency.

The new APM has been constructed, using the Costing Princples approved by the ERA in September 2007. The mathematical calculations and data structure of the Old APM was also used as a base for the new model.

In order to prove the accuracy of the New APM, WNR has populated the model with population data from the 2006 determination and reconciled the results obtained from the Old APM for that determination.

During this process, external auditors identified a number of errors and issues with the Old APM which prevent exact reconciliation. This document details each issue and quantifies the amount by which the New APM differs from the Old APM.

All differences between the two models have been quantified and WNR believes this validates the results produced by the New APM.

A comparison of the ceiling results generated by each model for the 2006 determination is given below:

Section	Old APM	New APM	Difference
SWM	\$24,569,823	\$24,355,193	-(\$214,630)
SWM(term)	\$3,067,148	\$2,662,969	-(\$404,179)
EGR	\$116,306,639	\$120,077,273	\$3,770,635
SGE	\$37,637,455	\$38,155,055	\$517,600
SGL	\$21,914,797	\$21,983,488	\$68,691
WOR	\$7,312,541	\$7,744,991	\$432,450
GRN	\$12,947,532	\$13,361,060	\$413,527
TOTAL	\$223,755,934	\$228,340,028	\$4,584,094

#### **1.2. Reconciliation Details**

The following errors in the Old APM were uncovered during the construction of the New APM:

- 1. GTK and Train number totals;
- 2. Omission of PerWay Region Overhead;
- 3. Communication GRV calculation;
- 4. Signal GRV calculation;
- 5. Sleeper GRV calculation;
- 6. Economic Life;
- 7. Communication Backbone;
- 8. Level crossing GRV calculation;
- 9. Culvert data omission;
- 10. Grain distances;
- 11. Grain construction interest;
- 12. SWMterm signal GRV allocation;
- 13. Grain Communication annuity calculation.

#### 1.2.1. GTK & Train Number Totals

Gross Tonne Kilometre (GTK) and Train Number data is used to allocate overheads and other costs across line sections. The data used for individual segments in each model reconciles, however in the Old APM, the total does not equal the sum of the segments (and subsequently differs from the New APM)

A summary is given below:

Model	GTK	Train Numbers
New APM total	22,707,023,912	305,937
Old APM total	19,331,878,343	247,439

Interrogation of the Old APM has revealed it was using correct 2006 data for the individual segments and redundant data from 2001 for the network totals.

Use of this redundant data occurs a second time when aggregate GTK for each section is required for allocation of PerWay Region overheads.

#### 1.2.2. Overheads and Operating Costs

The Excel stage of the Old APM fails to use the PerWay Region and Infrastructure Manager Overheads brought forward from Access and thus fails to capture the cost in the ceiling.

The total overhead omitted is \$6,477,000 but note this includes \$499,000 for Narngulu PerWay that's removed once the GRN\_MUL\_NRN segment is excluded.

#### 1.2.3. Communication GRV Calculation

The total communications GRV (excluding the communications backbone) across all sections in the determination should total \$57,082,920<sup>1</sup> however, the Old APM only sums to \$43,384,682.

The difference of \$13,698,238 is accounted for by a text string error in the MS Access component of the Old APM which resulting in the exclusion of the Merredin Yard to Kalgoorlie segment.

#### 1.2.4. Signal GRV Calculation

The GRV for signaling assets is based on signal 'sections'. The Brunswick section has a GRV of \$1,743,588 in the 2006 Determination and incorporates the following line segments:

Signal Section	Line Segment	Line Segment Name	Regulated Line Section
Brunswick	SWM_BWK_PIJ	Brunswick – Pinjarra	SWM
Brunswick	SWM_WGR_BWK	Wagerup – Brunswick	SWM
Brunswick	WOR_BWE_WOR	Brunswick East – Worsley	WOR
Brunswick	WOR_BWK_BWE	Brunswick – Brunswick East	WOR
Brunswick	WOR_BWN_BWE	Brunswick North – Brunswick East	WOR

The table shows that the Brunswick Signal Section crosses to different Regulated Line Sections ie SWM and WOR.

The signaling cost is allocated across each segment according to train count. The Old APM operates by calculating each section separately and this leads to the \$1,743,588 being allocated twice, firstly across the two SWM segments and secondly across the three WOR segments. This has been corrected in the New APM.

#### 1.2.5. Sleeper GRV calculation

The Old APM contains a methodological error which omits the material cost of Timber Sleepers and only retains the transport cost. This affects the following sections:

Line Segment	Line Segment Name
WOR_WOR_WON	Worsley - Worsley North
WOR_WON_HML	Worsley North - Hamilton
WOR_WOE_WON	Worsley East - Worsley North
WOR_WOR_WOE	Worsley - Worsley East
WOR_WOE_EWJ	Worsley East - Ewington
WOR_EWJ_PRE	Ewington - Premier
SWM_487_WCH	Inner Harbour 487 Pt to Woodchips

<sup>&</sup>lt;sup>1</sup> After the removal of \$86,483 for the Mullewa-Narngulu Segment (GRN\_MUL\_NRN ) which is excluded from the determination.

On the WOR section the difference amounts to \$6,723,945 and on the SWM section the difference amounts to \$491,774.

The New APM bases its calculation on timber sleepers as per the population data.

#### 1.2.6. Economic Life

Turnout population data in the Old APM states that 41kg and 47kg turnouts have timber bearers only, whereas 60kg turnouts can either have concrete or timber.

The GRV calculation deems all 41kg and 47kg bearers are timber however the Old APM attributes an economic life as though they were concrete. At least one segment within each section contains 41kg or 47kg turnouts.

The New APM correctly attributes a timber economic life for timber bearers.

#### **1.2.7.** Communication Backbone

The GRV and associated annuity calculations for this item were included as a manual adjustment at the Excel stage to both the SWM and EGR.

The Old APM did not use the correct distances section (i.e SWM and EGR). Summation of track lengths for individual segments forming the backbone amount to 856.784km for EGR and 181.693km for SWM, however when allocating the \$20m the values used in the Old APM are 700.0km for the EGR and 181.0km for the SWM.

This results in a misallocation of the \$20m backbone GRV between the EGR and SWM sections. The net effect on the total ceiling is zero.

#### 1.2.8. Level Crossings

Seven level crossings on SWM are pedestrian crossings. This type of crossing is unclassified in the population data and as a result not allocated a crossing width and area.

Crossing widths are allocated to five types of crossing: Major A, Major B, Major C, Occupational and Public Gravel.

A similar situation exists for steel level crossings on the GRN\_KUL\_YIL segment. No cost is provided for steel level crossings in the unit rate source data. The New APM reflects this by setting the unit rate to nil in the 'Parameters' sheet.

#### 1.2.9. Culvert data omission

Three culverts on the GRN\_AVN\_GOM segment (id GRN7, GRN8 & GRN9) and 1 on WOR\_BWE\_WOR (id 10066) are omitted from the calculation in the Old APM, despite being included on the population data. This has been corrected in the New APM.

#### 1.2.10. Grain distances

The Old APM contains identical distances from supply points (Midland, Kalgoorlie, Kwinana, Bunbury and Esperance) for route segments GRN\_KAT\_TAM, GRN\_KUL\_YIL and GRN\_MUL\_NRN.

The New APM has continued to use this data but it has been highlighted in red in the 'Route Section Spec 1' sheet and should be reviewed during future determinations.

#### **1.2.11.** Grain construction interest

The grain section excludes the GRN\_MUL\_NRN segment from its final calculation but an error at the Excel stage leaves in its GRV in the Construction Interest calculation thereby overstating the interest and length of time for construction.

#### 1.2.12. SWMterm signal GRV allocation

The Old APM allocates across the terminal ends by creation of a dummy section that includes the 10 segments. The cost is allocated as per the table below and ignores the train numbers specified:

Segment	Allocation	Train Numbers
SWM_BIJ_ALC_In	0%	10,748
SWM_486_ALC_Out	33%	6,659
SWM_487_WOR_Out	0%	4,089
SWM_BIJ_486	0%	10,748
SWM_486_487	0%	4,089
SWM_487_WCH	66%	63
SWM_KWI_ABJ	0%	7,160
SWM_ABJ_ABA	0%	5,174
SWM_ABJ_ACA	0%	1,986
SWM_ACA_ALA	0%	790

It is not documented why this approach was taken but it is inconsistent with all the other sections. The New APM allocates by train number and remains consistent across all sections. The net effect of this error is zero however it results in a misallocation of the \$287,131 signals GRV for the section.

#### 1.2.13. Grain Communication annuity calculation

Segment Communication data imported from Access to Excel is split between COM10L and SIGCOML in order to apply different economic lives at the annuity stage.

For the GRN section only SIGCOML data exists however the Excel model in the Old APM does not recognise this and allocates the annuity calculation incorrectly.

This results in a misallocation of the communications annuity between GRN\_AVN\_GOM, GRN\_KAT\_TAM and GRN\_KUL\_YIL segments.

#### 1.3. Summary of methodological corrections.

Each of the 13 errors is quantified below as to their affect on the total ceiling:

Old APM Total Ceiling	\$223,755,935
Error	Impact
1. GTK and Train number totals	-(\$3,360,279)
2. Omission of PerWay Region Overhead;	\$5,907,747
3. Communication GRV calculation;	\$1,712,190
4. Signal GRV calculation;	-(\$189,157)
5. Sleeper GRV calculation;	\$748,871
6. Economic Life;	-(\$230,009)
7. Communication Backbone;	\$3,270
8. Level crossing GRV calculation;	\$1,504
9. Culvert data omission;	\$2,440
10. Grain distances;	\$82,955
11. Grain construction interest;	-(\$95,440)
12. SWMterm signal GRV allocation;	Nil
13. Grain Communication annuity calculation.	Nil
Total Impact of Errors	\$4,584,092
New APM Total Ceiling	\$228,340,028

By applying the relevant Weighted Average Cost of Capital (WACC) and CPI-X increases to calculate 2008 values, the net difference equates to \$5.8m. The following table shows effect of these corrections on the different line sections.

Line Continu	2008 Ce	0/ 1	
Line Section —	Old Methodology	New Methodology	% Increase
Kwinana to Bunbury Inner Harbour	\$31,642,191	\$31,376,872	-0.8%
Brunswick to Premier	\$9,402,700	\$10,059,590	7.0%
Forrestfield to Kalgoorlie	\$159,842,073	\$164,271,186	2.8%
Kalgoorlie to Leonora	\$30,385,669	\$30,456,664	0.2%
Kalgoorlie to Esperance	\$51,306,286	\$51,845,364	1.1%
Terminal Ends	\$3,471,013	\$3,122,648	-10.0%
Grain Lines	\$17,766,747	\$18,482,706	4.0%
Total	\$303,816,680	\$309,615,029	1.9%
Kwinana to Soundcem	n.a	n.a	n.a

#### **1.4. Other Issues – Maintenance Costs**

In the Old APM all but WOR and GRN still use the full maintenance calculation methodology as part of the calculation.

At the previous determination it was agreed that the maintenance cost methodology change to a unit rate e.g. for the SWM \$17,610 per km.

However, rather than applying these rates directly to each segment distance, they have been applied to the whole section and apportioned to each segment within the section based on it's contribution to the full maintenance calculation.

WOR and GRN apply the unit rates directly to each segment based on track length.

Because of the move to unit rates it is not clear whether inputs and parameters in the full maintenance calculation were reviewed and therefore valid. Furthermore using the segment distance directly is considered by WNR to be a better allocation method.

The New APM applies the unit rates directly to the segment based on its track length and avoids this issue.

Reconciliation to the Old APM was not performed because the full maintenance calculation has not been incorporated into the New APM.

However it should be noted that the total maintenance cost for each section reconciles with the old APM; it is the allocation across segments that are invalid.

## 2. Reconciliation Results

The following table details the results of the reconciliation process. By factoring in all the errors outlined in the previous section the old and new models reconcile, with the exception of the maintenance calculation.

		Total Ceiling	Capital N	laintenance	Working	Operating	Overhead
					Capital		
Eastern Goldfields Railway							
EGR_FOR_MID	F'Field Sth to Midland	\$502,717	-\$0	\$502,717	-\$0	-\$0	-\$0
EGR_MID_MLJ	Midland to Millendon Jn	\$537,849	-\$0	\$537,849	-\$0	-\$0	-\$0
EGR_MLJ_TYW	Millendon Jn to Toodyay West	\$144,697	-\$0	\$144,697	-\$0	-\$0	-\$0
EGR_TYW_AVN	Toodyay West to Avon Yard	\$344,436	-\$0	\$344,436	-\$0	-\$0	-\$0
EGR_AVN_WEM	Avon Yard to West Merredin	-\$298,863	-\$0	-\$298,863	-\$0	-\$0	-\$0
EGR_WEM_KOE	West Merredin to Koolyanobbing	-\$683,687	-\$0	-\$683,687	-\$0	-\$0	-\$0
EGR_KOE_WKW	Koolyanobbing to West Kalgoorlie	-\$304,813	-\$0	-\$304,813	-\$0	-\$0	-\$0
EGR_WKW_XAF	West Kalgoorlie to Border	\$189,688	-\$0	\$189,688	-\$0	-\$0	-\$0
EGR_AVN_WEM_SID	Avon to West Merredin Sidings	-\$240,537	-\$0	-\$240,537	-\$0	\$0	\$0
EGR_WEM_KOE_SID	West Merredin to Koolyanobbing Sidings	-\$128,044	-\$0	-\$128,044	-\$0	\$0	\$0
EGR_KOE_WKW_SID	Koolyanobbing to W Kal Sidings	-\$63,442	-\$0	-\$63,442	-\$0	\$0	\$0
Total							
Pruncwick to Promior		-\$0	-\$0	-\$0	-\$0	-\$0	-\$0
Brunswick to Freinier							
WOR_BWN_BWE	Brunswick North - East	-\$0	-\$0	\$0	-\$0	-\$0	-\$0
WOR_BWK_BWE	Brunswick - Brunswick East	-\$0	-\$0	\$0	-\$0	-\$0	-\$0
WOR_BWE_WOR	Brunswick East - Worsley	-\$0	-\$0	\$0	-\$0	-\$0	-\$0
WOR_WOR_WON	Worsley - Worsley North	-\$0	-\$0	\$0	-\$0	-\$0	-\$0
WOR_WON_HML	Worsley North - Hamilton	-\$0	-\$0	\$0	-\$0	\$0	-\$0
WOR_WOE_WON	Worsley East - Worsley North	-\$0	-\$0	\$0	-\$0	-\$0	-\$0
WOR_WOR_WOE	Worsely - Worsely East	-\$0	-\$0	\$0	-\$0	\$0	-\$0
WOR_WOE_EWJ	Worsley East - Ewington Jn	-\$0	-\$0	\$0	-\$0	\$0	-\$0
WOR_EWJ_PRE	Ewington Jn - Premier	-\$0	-\$0	\$0	-\$0	-\$0	-\$0
Total		-\$0	-\$0	\$0	-\$0	-\$0	-\$0
Grain							
GRN AVN GOM	Avon to Goomalling	-\$0	-\$0	\$0	-\$0	-\$0	-\$0
GRN KAT TAM	Katanning to Tambellup	-\$0	-\$0	\$0	-\$0	-\$0	-\$0
GRN KUL YIL	Kulin to Yilminning	-\$0	-\$0	\$0	-\$0	-\$0	-\$0
Total		-\$0	-\$0	\$0	-\$0	-\$0	-\$0
Kalgoorlie to Esperance							
SGE WKW HPN	West Kalgoorlie to Hampton	\$112 706	-\$0	\$112 706	-\$0	-\$0	-\$0
SGE HENI KMA	Hampton to Kambalda	\$80.762	-90	\$80,762			0\$- 0
SGE_HFN_RMA	Kambalda ta Salman Cuma	\$00,702 \$104,972	-90 ©	\$00,702	-90 ¢0	-90 ¢0	-90 ¢0
SGE_KMA_SGM	Kambalda to Salmon Gums	-\$104,073	-30	-\$104,073	-9U	-90	-\$U ¢o
SGE_SGWI_ESP	Samon Guns to Esperance	\$0,0∠0 €0.070	-30	\$0,020 \$3,070	-9U	-90	-\$U ¢o
SGE_HPN_KMA_SID	Kambalda siding	-\$3,072 \$3,072	-30	-90,072 ©0,000	-9U	\$U	φU ¢0
SGE_KMA_SGM_SID	Norseman Siding	-\$3,33Z	-30	-⊅3,33Z	-30	\$U \$0	ф0 ФО
Total	Samon Gums Siding	-\$0,107 -\$0	-\$0	-\$0,107	-\$0	-\$0	-\$0
Kalgoorlie to Leonora		Ŷ	¢0	ψũ	φo	ψũ	ψũ
SGL_KLG_MLC	Kalgoorlie to Malcolm	-\$116,783	-\$0	-\$116,783	-\$0	-\$0	-\$0
SGL_MLC_LNR	Malcolm to Leonora	\$117,761	-\$0	\$117,761	-\$0	-\$0	-\$0
SGL_KLG_MLC_SID	Menzies sidings	-\$978	-\$0	-\$978	-\$0	\$0	\$0
lotal		-\$0	-\$0	\$0	-\$0	-\$0	-\$0
South West Main							
SWM KWI MDI	Kwinana to Mundiiong In	-\$3.007	_©_	\$3.007	_\$O	_¢∩	_¢0
	Mundijona In to Pinjarra	-90,007 . ¢04 070	-90 ¢0	-43,007 -\$04 970	-90 ¢0	-90 ¢0	-90 ¢-
	Diniarrato Diniarra East	-934,019 \$84,020	-90 _¢0	-434,019 \$84 020	-⊅∩ _⊅0	-⊅0 _¢∩	-90 _92
SWM DNE ALLI	Pinjanato Filijana Last Dinjarra Fast to Alumina In	404,323 \$120 00F	-90 ¢0	\$130 00F	-90 ¢0	-90 ¢0	-90 ¢-
SWM DNE DNS	ninjana East to Alumina JII Dinjarra East to Dinjarra South	\$100,990 \$20,870	-90 ¢0	\$100,990 \$20 672	-90 ¢0	-90 ¢0	-90 ¢0
SWM PNLLWGP	Finjana East to Finjana 30000 Dinjarra to Wagerup	₹10,073 -₹72,000	-90 ¢0	430,073 -2222 774	-90 ¢0	-90 ¢0	-90 ¢0
	Wagerup to Brunswick In	-9223,114 _\$120.0E0	-90 ¢0	-9223,114 -\$130.050	-90 ¢0	-90 ¢0	-90 ¢0
	Brungwick In to Diction In	-\$130,930 \$50,465	-90 ©0	¢50,950	-90 ¢0	-90 ¢0	-90 ¢0
SWIM_BWK_FIJ	Dictor In to Runbury Innor Harb	¢09,100 ¢146,940	\$0 \$0	\$39,105 \$146,940	\$U \$0	-90 ¢0	-90 ¢0
Total	Fictori sii to Burbury Inner Fiarb	-\$0	-\$0	\$0	-30	-\$0	-\$0
Couth West Main Terminal Fuels		<b>\$</b>	ψũ	ψũ	<b>Q</b> U	<b>Ç</b>	ψũ
South West Main Terminal Ends							
SWM_BIJ_ALC_In	Inner Harbour 485 Pt to Alcoa (Inbound)	\$3,042	-\$0	\$3,042	-\$0	-\$0	-\$0
SWM_486_ALC_Out	Inner Harbour 486 Pt to ALCOA (Outbound)	-\$529	-\$0	-\$529	-\$0	-\$0	-\$0
SWM_487_WOR_Out	Inner Harbour 487 Pt to Worsley (Outbound)	-\$556	-\$0	-\$556	-\$0	-\$0	-\$0
SWM_BIJ_486	Inner Harbour 485 Pt to 486 pts	-\$187	-\$0	-\$187	-\$0	-\$0	-\$0
SWM_486_487	Inner Harbour 486 Pt to 487 pts	-\$164	-\$0	-\$164	-\$0	-\$0	-\$0
SWM_487_WCH	Inner Harbour 487 Pt to Woodchips	-\$5,082	-\$0	-\$5,082	-\$0	-\$0	-\$0
SWM_KWI_ABJ	Kwinana no3 points to bauxite junction	\$8,991	-\$0	\$8,991	-\$0	-\$0	-\$0
SWM_ABJ_ABA	Alcoa Bauxite Jn - Alcoa Bauxite Sdg	\$3,419	-\$0	\$3,419	-\$0	-\$0	-\$0
SWM_ABJ_ACA	Alcoa Bauxite Jn - Alcoa Caustic Sdg Pts	-\$5,748	-\$0	-\$5,748	-\$0	-\$0	-\$0
SWM_ACA_ALA	Alcoa Caustic Sdg Pts -Alcoa Alumina Sdg Pts	-\$3,187	-\$0	-\$3,187	-\$0	-\$0	-\$0
Total		-\$0	-\$0	-\$0	-\$0	-\$0	-\$0
Grand Total		-\$1	-\$0	-\$0	-\$0	-\$0	-\$0

## Comparison of 2008 Ceilings – Old and New APM

	Old APM WACC: 9.77% 75% of CPI: 3.181% Effective 1 July 2008	New APM WACC: 9.77% 75% of CPI: 3.181% Effective 1 July 2008	Impact of Methodological Corrections (% of Ceiling)
Kwinana to Bunbury Inner Harbour	\$31,642,191	\$31,376,872	-1%
Route Section Kwinana to Mundijong Jn Mundijong Jn to Pinjarra Pinjarra to Pinjarra East Pinjarra East to Alumina Jn Pinjarra East to Pinjarra South Pinjarra to Wagerup Wagerup to Brunswick Jn Brunswick Jn to Picton Jn Picton Jn to Bunbury Inner Harb	\$5,079,533 \$7,228,455 \$773,099 \$854,917 \$352,093 \$4,363,422 \$6,636,389 \$4,579,492 \$1,774,792	\$5,114,705 \$7,432,991 \$616,985 \$612,797 \$289,738 \$4,595,232 \$6,763,726 \$4,422,377 \$1,528,322	1% 3% -20% -28% -18% 5% 2% -3% -14%
Brunswick to Premier	\$9,402,700	\$10,059,590	7%
Route Section Brunswick North - East Brunswick - Brunswick East Brunswick East - Worsley Worsley - Worsley North Worsley North - Hamilton Worsley East - Worsley North Worsley East - Worsley North Worsley East - Ewington Jn Ewington Jn - Premier	\$189,675 \$525,772 \$3,337,198 \$548,690 \$1,120,618 \$151,149 \$295,033 \$2,837,894 \$396,669	\$160,966 \$428,610 \$3,279,698 \$564,089 \$1,265,888 \$167,019 \$307,841 \$3,444,982 \$440,499	-15% -18% -2% 3% 13% 10% 4% 21% 11%
Forrestfield to Kalgoorlie	\$159,842,073	\$164,271,186	3%
Route Section F'Field Sth to Midland Midland to Millendon Jn Millendon Jn to Toodyay West Toodyay West to Avon Yard Avon Yard to West Merredin West Merredin to Koolyanobbing Koolyanobbing to West Kalgoorlie West Kalgoorlie to Border Avon to West Merredin Sidings West Merredin to Koolyanobbing Sidings Koolyanobbing to W Kal Sidings	\$7,611,509 \$7,660,905 \$24,064,419 \$11,197,075 \$36,192,341 \$32,903,282 \$34,327,839 \$2,119,498 \$2,093,653 \$1,140,059 \$531,494	\$7,077,322 \$7,169,711 \$24,608,387 \$11,071,814 \$37,519,990 \$34,558,805 \$36,127,295 \$1,913,511 \$2,349,286 \$1,276,141 \$598,924	-7% -6% 2% -1% 4% 5% 5% -10% 12% 12% 13%
Kalgoorlie to Leonora	\$30,385,669	\$30,456,664	0%
Route Section Kalgooriie to Malcolm Malcolm to Leonora Menzies sidings	\$26,951,443 \$3,403,057 \$31,169	\$27,152,521 \$3,271,975 \$32,168	1% -4% 3%
Kalgoorlie to Esperance	\$51,306,286	\$51,845,364	1%
Route Section West Kalgoorlie to Hampton Hampton to Kambalda Kambalda to Salmon Gums Salmon Gums to Esperance Kambalda siding Norseman Siding Salmon Gums Siding	\$3,129,867 \$5,248,979 \$28,472,543 \$14,217,514 \$58,420 \$52,503 \$126,461	\$2,989,473 \$5,181,897 \$29,042,580 \$14,378,037 \$62,465 \$55,984 \$134,929	-4% -1% 1% 7% 7% 7%

## Comparison of 2008 Ceilings - Old and New APM (cont)

	Old APM WACC: 9.77% 75% of CPI: 3.181% Effective 1 July 2008	New APM WACC: 9.77% 75% of CPI: 3.181% Effective 1 July 2008	Impact of Methodological Corrections (% of Ceiling)
Terminal Ends	\$3,471,013	\$3,122,648	-10%
Route Section	\$0		
Inner Harbour 485 Pt to Alcoa (Inbound)	\$548,259	\$448,064	-18%
Inner Harbour 486 Pt to ALCOA (Outbound)	\$360,656	\$308,645	-14%
Inner Harbour 487 Pt to Worsley (Outbound)	\$239,542	\$208,154	-13%
Inner Harbour 485 Pt to 486 pts	\$494,634	\$407,990	-18%
Inner Harbour 486 Pt to 487 pts	\$189,990	\$157,150	-17%
Inner Harbour 487 Pt to Woodchips	\$415,061	\$468,470	13%
Kwinana no3 points to bauxite junction	\$530,703	\$476,541	-10%
Alcoa Bauxite Jn - Alcoa Bauxite Sdg	\$350,462	\$313,045	-11%
Alcoa Bauxite Jn - Alcoa Caustic Sdg Pts	\$234,761	\$228,884	-3%
Alcoa Caustic Sdg Pts -Alcoa Alumina Sdg Pts	\$106,946	\$105,705	-1%
Grain Lines			
Avon to Goomalling	\$5,601,741	\$5,651,024	1%
Katanning to Tambellup	\$3,961,758	\$4,315,177	9%
Kulin to Yilminning	\$8,203,248	\$8,516,505	4%