



# ACCOUNTING FOR FUTURE REINSTATEMENT COSTS

*A Coalface Training Guide*

## INTRODUCTION

AASB 116.16(c) requires that the initial estimate of the costs of future reinstatement of a site be recognised as part of the cost of the asset. (*We use the terms reinstatement, remediation, restoration etc interchangeably.*) AASB 116.18 then requires that the *provision for reinstatement* be recognised and measured in accordance with AASB 137 *Provisions, Contingent Liabilities & Contingent Assets*.

The requirement to recognise the costs of the future reinstatement applies whenever there is a legal or constructive obligation (as defined in AASB 137) to make the future reinstatement.

**Digression:** In a local government context, there can be situations where a Council is likely - or even certain - to undertake certain works as a result of the political imperatives of the situation. In the absence of the factors set out in AASB 137, this does not **of itself** create a legal or constructive obligation, NOR does the adoption of a forward Management Plan authorising the completion of such works **of itself** create such an obligation.

For local government, the most common situations where such obligations arise relate to rubbish tips and quarries for road materials (where the legal obligation exists as a condition of the original development consent) or for decontamination works at sites owned by, or under the control of, a Council.

**Digression:** Technically, where a quarry for road materials carts into inventory, which is then re-carted and charged to roadworks, the proportionate share of the costs of restoration should be allocated to the cost into store of each metre of road material in accordance with AASB 102 *Inventories*. If the material is carted direct to the works, the procedure outlined here should be appropriate.

If some material is carted into store and some carted direct to the works, then the appropriate portions should be accounted for in the different manners. While you, yourself, can handle these complexities, it is not certain that your successor will be able to do so, and **we recommend that all accounting for future reinstatement costs adopt the principles set out in this paper.**

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**They may not represent the best practice for your Council, which should be determined by consultation between the Council's officers and Auditor.**

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# ACCOUNTING FOR FUTURE REINSTATEMENT COSTS

If a present legal or constructive obligation exists, you have a **LIABILITY AND A MEASUREMENT PROBLEM, NOT A CONTINGENT LIABILITY.**

## YEAR 1 - INITIAL RECOGNITION

### ESTIMATING THE LIABILITY

AASB 137.36 requires that the “amount recognised as a provision shall be the best estimate of the expenditure required to settle the present obligation at the reporting date.” It may be that the estimate is not as good as you’d like, but if it’s the best estimate, use it.

AASB 137.45 also requires that “Where the effect of the time value of money is material, the amount of a provision shall be the present value of the expenditures expected to be required to settle the obligation.”

Your Engineer’s estimate (calculated as at 30 June 2004 - and using the government securities interest rates available for download from [www.coalface.com.au](http://www.coalface.com.au)), after using the *Coalface Present Value Calculator*, may well look like this:

Description		Gribbles Gravel Pit, Bullamakanka			Total	Year 9 2013
Task	Short Desc.	Amount	Year of Expe	Current or Fu		
Safety	5 labourers, ea 3 hrs	525	2013	Current	679	679
	Posts, signs, etc	500	2013	Current	647	647
Level	Dozer & Driver - 5 days	6000	2013	Current	7,760	7,760
	Grader & Driver - 5 days	7000	2013	Current	9,054	9,054
Cart & Spread topsoil			2013	Current	0	
	Royalties (1000 m @ \$5)	5000	2013	Future	5,000	5,000
	Trucks @ 25 km leads	6250	2013	Current	8,084	8,084
	Loader & operator	700	2013	Current	905	905
Water	Water truck - monthly for 3 years	36000	2013	Current	46,562	46,562
Supervision & allowances		15500	2013	Current	20,047	20,047
<b>SUBTOTAL - in future dollars</b>					OK	98,738
		<b>77475</b>				
<b>PRESENT VALUE</b>					59,092	59,092

**Digression:** Bear in mind that your Auditor has to have some reason to accept the calculation as the **best estimate of the future expenditure to settle the obligation.** Please make it easy for him to do so.

This amount - \$59,092 - represents both the asset and the liability to be recognised. For the purposes of this Council, the asset was determined to fall within the asset class “land and improvements”.

### YEAR 1 - JOURNAL ENTRIES

The entry is straightforward -

<b>DR</b>	Asset	\$59,092
	<b>CR</b> Provision for Future Reinstatement	\$59,092

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**Digression:** AASB 116.16 defines this as part of the cost of the asset, and if the asset happens to be land, so be it. As far as AASB 116 is concerned it is not a problem, because AASB 116.43 provides that “each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item shall be depreciated separately.”

So, the acquisition cost of the land would be depreciated separately at a rate of 0%. The restoration cost of the land is a **significant component that can be separately identified**, and would be depreciated separately over its *useful life*<sup>1</sup>.

We can thus have the situation where part of an asset which is classified as **land is subject to depreciation**. This is not an intuitive situation, but it is in strict conformity with the accounting standards.

The asset is described as being carried **at cost**, as this is the amount of initial recognition. The liability is being carried at the **present value at reporting date of the best estimate of the future expenditure to settle the obligation**.

## THE SECOND YEAR

### STEP 1 - UNWINDING THE DISCOUNT

AASB 119.82 sets out the method of calculation as follows:

“Interest cost is computed by multiplying the discount rate as determined at the start of the period by the present value of the defined benefit obligation throughout that period, taking account of any material changes in the obligation.”

Assuming there is no material change in the estimate, we can calculate the unwinding of the present value discount as:

- $\$59,092 \times 5.25\% = \$3,100$   
The interest rate used is the cash rate at the start of the reporting period.

Where there is a material change in the obligation, apply the interest rate to the simple average of the opening and closing amounts.

*“Materiality” can be interpreted rather generously in this context.*

*If we regard the threshold of materiality as 10%, then the change in the unwinding calculation will be in the order of 0.25% of the liability.*

*To have a material effect on the calculation of the unwinding of the discount, the new estimate of the liability would probably have to be **at least 50% greater** than last year’s estimate.*

The unwinding of present value discounts is disclosed as an **interest or finance cost**. However, note that it is NOT a *borrowing cost* for the purposes of AASB 123 *Borrowing Costs*, and hence it is not eligible for capitalisation under the allowed alternative treatment.<sup>2</sup>

1. *Useful life* is defined in terms of use by the entity, which in this case would be the period until the restoration/ reinstatement will be required to be made.
2. See Interpretation 1, paragraphs BC26 - BC 27.



# ACCOUNTING FOR FUTURE REINSTATEMENT COSTS

## STEP 2 - DEPRECIATION OF CAPITALISED RESTORATION COSTS

The standard is simple - *depreciation* is defined as “the systematic allocation of the depreciable amount of an asset over its useful life.” As the residual value of the restoration costs will be NIL, simply divide the carrying value of the restoration costs by the useful life.

In the example given, depreciation in the first year would be:  
 $\$59,092 \text{ divided by } 9 \text{ years} = \$6,566$

## STEP 3 - ESTIMATING THE LIABILITY

At the end of each reporting period, a new estimate of the liability must be made. The 2005 calculation may well look like this - and here note that the engineer preparing the estimate has provided more information, and the future expenditure now covers 3 financial years:

Description		Gribbles Gravel Pit, Bullamakanka						Year 8	Year 9	Year 10	
Task	Short Desc.	Quantity	Unit Cost	Amount	Year of Expe	Current or Fut	Total	2013	2014	2015	
Safety	Labour	105	36.65	3848	2013	Current	4,989	4,989			
	Posts, signs, etc	1	1000	1000	2013	Current	1,297	1,297			
Level	Dozer & Driver - 10 days	35	175	6125	2013	Current	7,942	7,942			
	Grader & Driver - 10 days	35	195	6825	2013	Current	8,849	8,849			
Cart & Spread topsoil						2013	Current	0			
	Royalties (1000 m @ \$5)	1000	5	5000	2013	Future	5,000	5,000			
	Trucks @ 25 km leads	3500	1.25	4375	2013	Current	5,673	5,673			
	Truck Driver labour	70	39.40	2758	2013	Current	3,576	3,576			
	Loader & operator	10	145	1450	2013	Current	1,880	1,880			
Replanting	Plants, guards, stakes etc	1	700	700	2013	Current	908	908			
	Labour	10	36.65	367	2013	Future	367	367			
Water	Water truck - monthly for 3 years	1200	1.25	1500	2013	Current	1,945	1,945			
	Water truck driver	120	39.40	4728	2013	Current	6,130	6,130			
	Water truck - 2nd year	1200	1.25	1500	2014	Current	2,009		2,009		
	Water truck driver	120	39.40	4728	2014	Current	6,333		6,333		
	Water truck - 3rd year	1200	1.25	1500	2015	Current	2,077			2,077	
	Water truck driver	120	39.40	4728	2015	Current	6,548			6,548	
Supervision & allowances			45%	14121	2013	Current	18,309	18,309			
<b>SUBTOTAL - in future dollars</b>							OK	66,865	8,342	8,625	
								<b>65253</b>			
<b>PRESENT VALUE</b>								55,431	44,879	5,327	5,225

In the example given, there has been a net reduction of \$3,661 in the 2005 reporting period. This is made up of 3 components:

- the re-measurement adjustment arising from the new quantities/prices in the new estimate.
- unwinding of the present value discount because the expected works are now 8 years, instead of 9 years, into the future.
- a re-measurement adjustment arising from the change in government securities interest rates.

## STEP 4 - REMEASUREMENT ADJUSTMENT

The re-measurement adjustment is the difference between the interest cost and the net change in the provision - in this case \$6,761 - and may be positive or negative - in this case negative.

# ACCOUNTING FOR FUTURE REINSTATEMENT COSTS



UIG 1 does not require that the two remeasurement adjustments be separately identified or reported.

Accordingly, the remeasurement entry is:

<b>DR</b>	Provision for Future Reinstatement	\$6,761	
	<b>CR</b> Asset		\$6,761

**Note that a credit remeasurement deducted cannot exceed the carrying value, in which case the excess is immediately recognised in profit and loss.**

## YEAR 2 - SUMMARY

(See "LEDGER ACCOUNT BALANCES" on page 10 below.)

The provision account agrees with the newest, best available estimate of the present value of the future cash outflows, being \$55,431.

The carrying value of the asset is now:

Asset account ( <b>at cost</b> )	\$52,331
Less: Accumulated Depreciation:	6,566
Carrying Value	<u>\$45,765</u>

## THE THIRD YEAR

During this year, the EPA required that Council undertake a formal investigation of the potential for groundwater contamination, which was carried out by consultants at a cost of \$37,000. While the study indicated that additional remediation works would be required, it also indicated that the period before these would be needed would be increased by 5 years.

### STEP 1 - WHEN THE WORKS ARE UNDERTAKEN

The nature of the consultants' report was considered to be a preliminary part of the planning for the remediation works, and accordingly was debited against the provision, and reported as "payments made".

However, if the reinstatement is actually in the process of being carried out, it may be inappropriate to use present values.

### STEP 2 - UNWINDING THE DISCOUNT

The unwinding of the present value discount (if any, but it may be a multi-stage reinstatement) may be calculated based only on the opening provision, as:

$$\$55,431 \times 5.5\% = \$3,049$$

### STEP 3 - DEPRECIATION OF CAPITALISED RESTORATION COSTS

The new estimate prepared at 30 June 2005 envisaged expenditure occurring over the 3 years 2013-2015. Of this the bulk of the expenditure was expected to occur in 2013, and hence adopting a useful life of 8 years would not result in a material error.



# ACCOUNTING FOR FUTURE REINSTATEMENT COSTS

Depreciation could therefore be calculated as:

$$\$45,765 \text{ divided by } 8 \text{ years} = \$5,721$$

- Note that depreciation is calculated as the **depreciable amount** - which equals carrying value - divided by useful life.
- Where the estimated future expenditures occur more evenly over different years, it may be necessary to use the weighted average of the expenditures as the useful life.
- The depreciation calculation is based on the information currently recorded in the books - the extension to the useful life arising from the consultant's report will affect **next** year's calculation.

## STEP 4 - ESTIMATING THE LIABILITY

At the end of each reporting period, a new estimate of the liability must be made. The 2005 calculation looked like this:

Description		Gribbles Gravel Pit, Bullamakanka					Year 12	Year 13	Year 14	
Task	Short Desc.	Quantity	Unit Cost	Amount	Year of Expe	Current or Fu	Total	2018	2019	2020
Safety	Labour	105	40.00	4200	2018	Current	6,402	6,402		
	Posts, signs, etc	1	1750	1750	2018	Current	2,667	2,667		
Testing	& Inspections	1	15000	15000	2020	Current	24,504			24,504
Level	Dozer & Driver - 15 days	70	180	12600	2018	Current	19,206	19,206		
	Grader & Driver - 15 days	70	205	14350	2018	Current	21,873	21,873		
Cart & Spread topsoil						2018	Current	0		
	Royalties (2000 m @ \$5)	2000	5	10000	2018	Future	10,000	10,000		
	Trucks @ 25 km leads	7000	1.3	9100	2018	Current	13,871	13,871		
	Truck Driver labour	140	41.00	5740	2018	Current	8,749	8,749		
	Loader & operator	140	155	21700	2018	Current	33,076	33,076		
Replanting	Plants, guards, stakes etc	1	1200	1200	2018	Current	1,829	1,829		
	Labour	50	40.00	2000	2018	Future	2,000	2,000		
Water	Water truck - monthly for 3 years	1500	1.3	1950	2018	Current	2,972	2,972		
	Water truck driver	150	41.00	6150	2018	Current	9,374	9,374		
	Water truck - 2nd year	1500	1.3	1950	2019	Current	3,078		3,078	
	Water truck driver	150	41.00	6150	2019	Current	9,707		9,707	
	Water truck - 3rd year	1500	1.3	1950	2020	Current	3,186			3,186
	Water truck driver	150	41.00	6150	2020	Current	10,047			10,047
Supervision & allowances			45%	42498	2018	Current	64,778	64,778		
<b>SUBTOTAL - in future dollars</b>							<b>OK</b>	<b>196,797</b>	<b>12,785</b>	<b>37,737</b>
							<b>164438</b>			
<b>PRESENT VALUE</b>							<b>123,469</b>	<b>100,157</b>	<b>6,151</b>	<b>17,161</b>

In the example given, there has been a net increase of \$68,038 in the 2006 reporting period.

However, because the consultants' report has been debited against the provision, the total remeasurement adjustment required to bring the provision to equal the present value of the best estimate of the expected future outflows is \$101,989.

## STEP 5 - REMEASUREMENT ADJUSTMENT

Accordingly, the remeasurement entry is:

<b>DR</b>	Asset	\$101,989
<b>CR</b>	Provision for Future Reinstatement	\$101,989

# ACCOUNTING FOR FUTURE REINSTATEMENT COSTS



## STEP 6 - IMPAIRMENT IMPLICATIONS

"If the adjustment results in an addition to the cost of an asset, the entity shall consider whether this is an indication that the new carrying amount of the asset may not be fully recoverable. If it is such an indication, the entity shall test the asset for impairment by estimating its recoverable amount, and shall account for any impairment loss, in accordance with AASB 136 *Impairment of Assets*." (Interpretation 1.5(c))

The carrying value of the future reinstatement asset at this stage is  $\$154,320 - \$12,287 = \$142,033$ .

This is the end of the second year, and it is now estimated that there will be a further 12 years before the reinstatement is undertaken. The carrying value of the asset should not exceed 12/14ths of the current estimate of \$123,469. There is therefore need to recognise an impairment of the future reinstatement asset:

<i>DR</i>	Impairment expense	\$36,203
<i>CR</i>	Accumulated Depreciation	\$36,203

This adjustment is technically correct where the future reinstatement asset is being carried on the **cost basis**. However, there may be some other factors that you and your auditor may wish to consider, relating to the future uses or disposal of the land, which are beyond the scope of this paper.

## YEAR 3 - SUMMARY

(See "LEDGER ACCOUNT BALANCES" on page 10 below.)

The provision account agrees with the newest, best available estimate of the present value of the future cash outflows, being \$123,469.

The carrying value of the asset is now:

Asset account ( <b>at cost</b> )	\$154,320
Less: Accumulated Depreciation:	48,490
Carrying Value	<u>\$105,830</u>

## THE FOURTH YEAR

### STEP 1 - UNWINDING THE DISCOUNT

The unwinding of the present value discount (if any, but it may be a multi-stage reinstatement) may be calculated based only on the opening provision, as:

$$\$123,469 \times 5.75\% = \$7,099$$

### STEP 2 - DEPRECIATION OF CAPITALISED RESTORATION COSTS

The new estimate prepared at 30 June 2006 envisaged expenditure occurring over the 3 years 2018-2020. Again the bulk of the expenditure was expected to occur in 2018, and hence adopting a useful life of 11 years would not result in a material error.

Depreciation could therefore be calculated as:



# ACCOUNTING FOR FUTURE REINSTATEMENT COSTS

\$105,830 divided by 11 years = \$9,621

- Note that depreciation is calculated as the **depreciable amount** - which equals carrying value - divided by useful life.
- Where the estimated future expenditures occur more evenly over different years, it may be necessary to use the weighted average of the expenditures as the useful life.

## STEP 4 - ESTIMATING THE LIABILITY

At the end of each reporting period, a new estimate of the liability must be made. The 2007 calculation looked like this:

Description		Gribbles Gravel Pit, Bullamakanka					Year 11	Year 12	Year 13		
Task	Short Desc.	Quantity	Unit Cost	Amount	Year of Expe	Current or Fut	Total	2018	2019	2020	
Safety	Labour	105	42.00	4410	2018	Current	6,438	6,438			
	Posts, signs, etc	1	1750	1750	2018	Current	2,555	2,555			
Testing	& Inspections	1	17500	17500	2020	Current	27,409			27,409	
Level	Dozer & Driver - 15 days	70	190	13300	2018	Current	19,418	19,418			
	Grader & Driver - 15 days	70	215	15050	2018	Current	21,973	21,973			
Cart & Spread topsoil					2018	Current	0				
	Royalties (2000 m @ \$5)	2000	5	10000	2018	Future	10,000	10,000			
	Trucks @ 25 km leads	7000	1.35	9450	2018	Current	13,797	13,797			
	Truck Driver labour	140	43.00	6020	2018	Current	8,789	8,789			
	Loader & operator	140	160	22400	2018	Current	32,703	32,703			
Replanting	Plants, guards, stakes etc	1	1350	1350	2018	Current	1,971	1,971			
	Labour	50	42.00	2100	2018	Future	2,100	2,100			
Water	Water truck - monthly for 3 years	1500	1.35	2025	2018	Current	2,956	2,956			
	Water truck driver	150	43.00	6450	2018	Current	9,417	9,417			
	Water truck - 2nd year	1500	1.35	2025	2019	Current	3,063		3,063		
	Water truck driver	150	43.00	6450	2019	Current	9,756		9,756		
	Water truck - 3rd year	1500	1.35	2025	2020	Current	3,172			3,172	
	Water truck driver	150	43.00	6450	2020	Current	10,102			10,102	
Supervision & allowances			45%	44946	2018	Current	65,620	65,620			
<b>SUBTOTAL - in future dollars</b>							OK	197,737	12,819	40,683	
								173701			
<b>PRESENT VALUE</b>								129,918	104,382	6,392	19,144

The remeasurement adjustment required to bring the provision to equal the present value of the best estimate of the expected future outflows is a credit of \$650.

## STEP 5 - RE-MEASUREMENT ADJUSTMENT

Accordingly, the remeasurement entry is:

<b>DR</b>	Provision for Future Reinstatement	\$650
	<b>CR</b>	Asset
		\$650

## YEAR 4 - SUMMARY - before revaluation

(See "LEDGER ACCOUNT BALANCES" on page 10 below.)

The provision account agrees with the newest, best available estimate of the present value of the future cash outflows, being \$129,918.



# ACCOUNTING FOR FUTURE REINSTATEMENT COSTS



The carrying value of the asset is now:

Asset account ( <b>at cost</b> )	\$153,670
Less: Accumulated Depreciation:	58,111
Carrying Value	<u>\$ 95,559</u>

## WHEN THE WORKS ARE COMPLETED

The whole of the remaining balance of the provision must be transferred **to the expenses section** of profit and loss. This is so irrespective of whether there is a debit or credit balance to transfer, because the amounts creating the provision have all been treated as expenses either at the time of recognition or by way of write off over a number of years.

## ASSETS HELD AT FAIR VALUE

The treatment for assets held at fair value is rather more complex because of the additional interaction between the asset account and asset revaluation reserve. Paragraph 6 of UIG Interpretation 1 *Changes in Existing Decommissioning, Restoration and Similar Liabilities* will require particular attention. UIG 1.IE7 refers to important points to be taken into account in revaluing such assets.

In our view, the examples and explanatory notes given in Interpretation 1 do not cover many of the most common situations that will be met in local government, and it will be necessary to formulate generally accepted industry practices and guidelines. We have made a submission to the NSW LGAAG to this effect.

## ANOTHER SCENARIO

If Council currently owns some contaminated land, and has made the decision to restore it and sell the land, the carrying value (including estimated restoration costs) should be transferred to **inventory**. Re-measurement adjustments would be debited/credited direct to inventory.

AASB 102 requires that inventory be carried at the lower of cost and net realisable value.

This is the only scenario where restoration costs are not depreciated over the term to completion of the works. If the asset is being retained for Council use this scenario WILL NOT apply.



# ACCOUNTING FOR FUTURE REINSTATEMENT COSTS

## LEDGER ACCOUNT BALANCES

FUTURE REINSTATEMENTS

2007 ANNUAL FINANCIAL STATEMENTS TRAINING

<b>Provision for Restoration</b>			
30/6/2004	Recognise liability		59,092     \$59,092 CR
30/6/2005	Unwind present value discount		3,100     \$62,192 CR
30/6/2005	Remeasurement adjustment	6,761	\$55,431 CR
2005/2006	Payments	37,000	\$18,431 CR
30/6/2006	Unwind present value discount		3,049     \$21,480 CR
30/6/2006	Remeasurement adjustment		101,989     \$123,469 CR
30/6/2007	Unwind present value discount		\$130,568 CR
30/6/2007	Remeasurement adjustment	650	\$129,918 CR

<b>Asset account</b>			
30/6/2004	Recognise liability	59,092	\$59,092 DR
30/6/2005	Remeasurement adjustment		6,761     52,331 DR
30/6/2006	Remeasurement adjustment	101,989	\$154,320 DR
30/6/2007	Remeasurement adjustment		650     \$153,670 DR

<b>Accumulated Depreciation</b>			
30/6/2005	Depreciation charge for year		6,566     \$6,566 CR
30/6/2006	Depreciation charge for year		5,721     \$12,287 CR
30/6/2006	Impairment expense		36,203     \$48,490 CR
30/6/2007	Depreciation charge for year		9,621     \$58,111 CR

<b>Various expense accounts - 2005</b>			
<b>Finance Costs</b>	Unwind present value discount		3,100 DR
<b>Depreciation</b>	Depreciation charge for year		6,566 DR

<b>Various expense accounts - 2006</b>			
<b>Finance Costs</b>	Unwind present value discount		3,049 DR
<b>Depreciation</b>	Depreciation charge for year		5,721 DR
<b>Impairment</b>	Impairment expense		36,203 DR

<b>Various expense accounts - 2007</b>			
<b>Finance Costs</b>	Unwind present value discount		7,099 DR
<b>Depreciation</b>	Depreciation charge for year		9,621 DR