



# ***TR 92/16 - Income tax: mudlakes, dykes, tailing dams and other industrial residue or waste disposal facilities - deductions***

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## Taxation Ruling

### Income tax: mudlakes, dykes, tailing dams and other industrial residue or waste disposal facilities - deductions

#### other Rulings on this topic

IT 175, IT 2685

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*This Ruling, to the extent that it is capable of being a 'public ruling' in terms of Part IVAAA of the Taxation Administration Act 1953, is a public ruling for the purposes of that Part. Taxation Ruling TR 92/1 explains when a Ruling is a public ruling and how it is binding on the Commissioner.*

## What this Ruling is about

1. This Ruling explains:

- (a) the circumstances in which expenditure on mudlakes, dykes, tailing dams and other similar industrial residue or waste storage or disposal facilities can be deducted under subsection 51(1), Division 10, Division 10AB or Division 10D of Part III of the *Income Tax Assessment Act 1936* (ITAA) by taxpayers carrying on a business of mining, quarrying or processing minerals; and
- (b) whether depreciation of the above items is deductible under section 54 and, if so, the appropriate rates of depreciation.

## Ruling

### (a) Deductions under subsection 51(1)

2. Expenditure on the construction of a mudlake, initial containment area, tailings dam, or similar industrial residue or waste storage or disposal facility in the course of carrying on a business of mining, quarrying or processing minerals is generally not deductible under subsection 51(1).

3. Expenditure on the construction of a dyke in the course of carrying on a business of mining, quarrying or processing minerals is deductible under subsection 51(1).

**TR 92/16****(b) Depreciation**

4. Mudlakes and initial containment areas are plant for the purposes of section 54 and are therefore depreciable.

5. Tailings dams and other industrial residue or waste disposal facilities are also plant for the purposes of subsection 54 and are therefore depreciable.

6. Since 1 July 1992, taxpayers have had the option of either making an estimate of the effective lives of their depreciable plant taking into account their particular circumstances of use or adopting the Commissioner of Taxation's published determination of effective lives.

7. If a taxpayer chooses to estimate the effective life of a mudlake, initial containment area, tailings dam or other industrial residue or waste disposal facility, the taxpayer makes the estimate at the time the taxpayer first uses the property to produce assessable income. We consider that the taxpayer should work out the period during which it would be reasonable to expect that a particular facility would be used by the taxpayer in storing or disposing of waste. If the taxpayer expects to add more waste to the facility after it is first filled, the effective life is the period from the first use to the time it is expected to be no longer reasonably capable of being so used.

8. Under section 54A the Commissioner hereby determines that taxpayers may elect to adopt as the effective lives of units of property owned by them the following specified periods:

Item	Effective life (years)	Acquired or constructed Pre-27/2/92		Acquired or constructed Post-26/2/92	
		Prime cost %	Diminishing value %	Prime cost %	Diminishing value %
Mudlakes	10	12	18	17	25
Initial containment areas	20	6	9	13	20
Tailings dams	20	6	9	13	20

9. The rates set out in the table in paragraph 8 only apply to the 1991/92 income year and later years. Before 1 July 1991, unless special rates applied, depreciation rates were fixed according to the Commissioner's estimate of effective life (see Taxation Ruling IT 2685 at paragraphs 25-30). Mudlakes, initial containment areas and tailings dams are structural improvements and, for the year of income

ending 30 June 1991 and earlier years of income, are eligible for the general depreciation loading rates under section 57AG.

10. If the effective life of a particular mudlake, containment area, tailings dam, or storage or waste disposal facility commenced to be constructed on or after 1 July 1991 is less than three years, an immediate deduction is allowable under subsection 54(1). If a taxpayer commenced to construct such a facility before 1 July 1991 and the effective life of the facility is less than 2 years, we accept that an immediate deduction is allowable.

11. From 1 July 1991, a deduction is allowable under the general depreciation provisions for a mudlake, initial containment area, tailings dam, or other industrial residue or waste disposal facility used in rehabilitation-related activities - even if the particular facility is not actually used, or installed ready for use, for the purpose of producing assessable income. If the expected life of such a facility is less than 3 years, the cost of the plant is deductible in the year it is first used for rehabilitation-related activities.

12. If a waste storage or disposal facility is affixed to Crown land, from 27 February 1992 the lessee of the Crown land is eligible for a deduction for depreciation. Before 27 February 1992, a lessee of Crown land was not entitled to a deduction for depreciation of such a facility.

### **(c) Other deductions**

13. Expenditure on waste or residue storage or disposal facilities by a taxpayer carrying on a business of mining is generally not 'allowable capital expenditure' for the purposes of Division 10. It may be allowable capital expenditure in certain limited circumstances but only if the conditions in subsection 122A(1B) are met (see paragraph 36). Expenditure on these facilities by a taxpayer carrying on a business of quarrying is not 'allowable capital expenditure'.

14. No deduction is allowable under Division 10D for the capital cost of the various waste disposal and storage facilities addressed in this Ruling because that cost can be written off under other provisions of the ITAA.

### **Date of effect**

15. This Ruling sets out the current practice of the Australian Taxation Office. It applies (subject to any limitations imposed by statute) for years of income commencing both before and after the date on which it is issued.

## **Explanations**

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### **Mudlakes**

16. Some businesses which refine bauxite to make alumina use mudlakes in disposing of the vast amounts of waste produced by the process. The construction of a mudlake involves the creation of a hollow with walls lined by mud on leasehold or freehold land owned by the taxpayer. The walls and bottom of the mudlake are sealed with clay and sand mix followed by sand cover to prevent seepage of chemicals, such as caustic soda, into underground water.

17. They are essentially waste disposal facilities. However, while being filled, they are also used for the recovery of chemicals and cooling of water in the refining of minerals. The chemicals and cooled water are recycled into the refining process. They also perform the function of sedimentation.

### **Dykes**

18. Dykes are partitions built from the floor of the mudlakes for the purpose of storage of residue or waste to a specified height, for instance 2.5 metres. Once the residue reaches that height, it is allowed to dry and another series of partitions is erected for another layer of residue. The end result is a series of terraces consisting of dried waste. The construction of dykes is a continuing process in the storage of residue.

### **Initial containment areas**

19. Initial containment areas are residue disposal facilities built on filled mudlakes. The containment areas have walls as high as those of existing mudlakes. Once the containment areas are filled with residue, another containment area is built on top of the previous containment area through the dyke method.

### **Tailings dams**

20. Tailings dams usually store refuse or other residue from mining, quarrying or processing minerals in water.

## **Subsection 51(1)**

21. Expenditure on the construction of mudlakes, initial containment areas, tailings dams, or other industrial residue or waste storage or disposal facilities is of a capital nature, and is not deductible under subsection 51(1). The expenditure provides the taxpayer with the enduring benefit of a storage or disposal facility which may be used for many years. In contrast, the construction of a dyke does not provide a long-term storage or disposal facility but is part of an on-going process in the storage or disposal of residue. Therefore, expenditure on dykes is of a revenue nature and is deductible under subsection 51(1).

## **Depreciation**

### **Whether a facility is plant**

22. Depreciation is allowed for plant or articles owned by a taxpayer and used, or installed ready for use, for the purpose of producing assessable income. Plant 'in its ordinary sense ... includes whatever apparatus is used by a business man for carrying on his business - not his stock-in trade which he buys or makes for sale; but all goods and chattels, fixed or moveable, live or dead, which he keeps for permanent employment in his business' (Lindley LJ in *Yarmouth v. France* (1887) 19 QBD 647 at 658). However, if an item merely provides the setting in which income producing activities are conducted, it does not qualify as plant (*J. Lyons & Co v. The Attorney-General* (1944) 1 All ER 477 at 479). A permanent structure may be plant if 'it fulfils the function of plant in the trader's operations' (*IRC v. Barclay Curle & Co. Ltd* [1969] 1 All ER 732).

23. Mudlakes are plant. In refining bauxite, disposing of the vast amounts of waste produced is an integral part of the process. The mudlakes perform an important role in the disposal of that waste and in the recycling of caustic substances and water. Unlike the service pit considered in *Moreton Central Sugar Mill Co Ltd v. FC of T* (1967) 116 CLR 151 at 157, a mudlake is not 'a structure built into the ground so as to form a static and permanent feature of the place in which a business may be carried on and having no other function than to provide a convenient stand for performing of work in the business'.

24. If a taxpayer carrying on a business of refining bauxite erected huge steel, concrete or brick walls which played the role performed by the mudlakes, those structures would be plant (*IRC v. Barclay Curle & Co. Ltd; Cooke v. Beach Station Caravans Ltd* [1974] 3 All ER 167). We consider that in these circumstances it makes no difference that the wall is made of earth.

25. 'Initial containment areas' are also plant because they perform very similar functions to mudlakes.

26. Similarly, tailings dams and other industrial residue or waste disposal facilities have a storage or disposal function directly in connection with the operation of plant for the purpose of producing assessable income and, therefore, are plant for depreciation purposes under section 54.

### **Effective life of a facility**

27. Since 1 July 1992, taxpayers have had the option of either making an estimate of the effective lives of their depreciable plant taking into account their particular circumstances of use or adopting the Commissioner of Taxation's published determination of effective lives.

28. In estimating the effective life of a mudlake, initial containment area, tailings dam or other industrial residue or waste disposal facility under subsection 54A(1), we consider that a taxpayer should work out the period during which it would be reasonable to expect that a particular facility would be used by the taxpayer in storing or disposing of waste. In the case of a facility, such as mudlake, which cannot be used in a taxpayer's business after it is finally filled, the effective life is the period from the time it is first used to the time it is expected that the taxpayer will cease putting waste into the facility. Consequently, if it is expected that more waste will be added to such a facility after it is first filled, the effective life is the period from the first use to the time it is expected to be no longer reasonably capable of being so used.

### **Facilities located on leased Crown land**

29. Taxpayers often construct waste storage or disposal facilities on leased Crown land. Before 27 February 1992, section 54 only allowed a deduction for depreciation of 'property owned by a taxpayer'. Taxation Ruling IT 175 explains that if a lessee of land installs property (especially a fixture or improvement) on the leasehold land, the lessee may be the owner of that property for the purposes of section 54 if the lessee has the right to remove the property or a right to compensation for the property's value.

30. The facilities considered in this Ruling become a permanent part of the land and cannot be removed e.g. after a mudlake is filled, the operator usually covers it with soil and establishes plants on top of the filled mudlake. Furthermore, the lessee does not ordinarily have any right to compensation for the cost of constructing the facility. Consequently, the lessee of land under a Crown lease does not 'own' a

facility constructed on the land for the purposes of section 54. It follows that, before 27 February 1992, a lessee of Crown land was not entitled to a deduction for depreciation of such a facility.

31. Section 54AA deems the lessee of leased Crown land to be the owner of property affixed to that land for the purposes of the depreciation provisions. Section 54AA applies to income-producing plant and equipment commenced to be constructed on or after 27 February 1992. Also, such plant that was acquired or commenced to be constructed before 27 February 1992 is eligible for depreciation deductions based on its notional written down value on 27 February 1992.

32. Thus, from 27 February 1992, the lessee of leased Crown land is eligible for a deduction for depreciation of a waste storage or disposal facility affixed to the land.

## **Division 10**

33. In *Mount Isa Mines Ltd v. FC of T* 91 ATC 4154; (1991) 21 ATR 1294 (the *Mount Isa Mines* case) the Full Court of the Federal Court of Australia considered the deductibility under sections 51, 53 and 122DB (Division 10) of expenditure incurred in the construction of a new retaining wall for a tailings dam.

34. The Full Court held that the expenditure in constructing the dam was capital in nature and, therefore, was not deductible under subsection 51(1). The expenditure was not deductible under section 53 because it was not for repairs.

35. As for Division 10, the Court held by majority that the expenditure was 'allowable capital expenditure' within paragraph 122A(1)(c). The expenditure was 'expenditure on ...other improvements for use directly in connection with the storage (whether before or after treatment) of minerals' in relation to the operation of the treatment plant. The Commissioner had argued that the tailings stored in the dam were not 'minerals' within the meaning of that word in paragraph 122A(1)(c). The majority held that the word 'minerals' could be taken to describe all the various products of the treatment of ore, even those with no commercial value.

36. The Commissioner accepts the Full Federal Court's decision in the *Mount Isa Mines* case on the tailings dam issue. However, section 122A, which defines 'allowable capital expenditure' for the purposes of Subdivision A of Division 10, has been amended since the years of income considered in the *Mount Isa Mines* case. Subsection 122A(1B) now excludes from 'allowable capital expenditure' of a taxpayer carrying on 'prescribed mining operations', expenditure on the following plant or articles:

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- (a) those acquired by the taxpayer under a contract entered into after 25 May 1988; or
- (b) those constructed by the taxpayer under a contract entered into after 25 May 1988 or under a series of contracts, the first of which was entered into after that date; or
- (c) those constructed by the taxpayer other than under a construction contract and on which construction commenced after 25 May 1988; or
- (d) any not used for the purpose of producing assessable income or installed ready for use for that purpose before 1 July 1991 (regardless of when the taxpayer contracted for it or when its construction commenced).

37. We consider that mudlakes, initial containment areas, tailings dams and the other waste storage or disposal facilities considered in this Ruling are plant (see explanation at paragraphs 22-26). Consequently, expenditure on a facility is not 'allowable capital expenditure' for the purposes of Division 10 if the facility satisfies any of subparagraphs (a)-(d) in paragraph 36.

38. If a waste or residue storage facility satisfies none of subparagraphs (a)-(d) in paragraph 36, capital expenditure on the facility may be 'allowable capital expenditure' within paragraph 122A(1)(c). It is necessary that the facility be used to store minerals in relation to the operation of plant 'for use primarily and principally in the treatment of minerals obtained from the carrying on by the taxpayer of prescribed mining operations'.

39. If a taxpayer carries on eligible quarrying operations, 'allowable capital expenditure' for the purposes of Subdivision B of Division 10 excludes expenditure on 'property, being plant or articles for the purposes of section 54'. Expenditure incurred by a taxpayer carrying on an eligible quarrying business on the various waste storage or disposal facilities considered in this Ruling is not 'allowable capital expenditure' because those facilities are plant or articles.

## Division 10AB

40. This Division allows a deduction for expenditure in respect of the rehabilitation of mining and quarrying sites (section 124BA) but expenditure in respect of 'constructing buildings or other structures' is expressly excluded from deduction (subsection 124BC(1)). The various residue and waste disposal facilities considered in this Ruling are 'other structures' within the meaning of that word in paragraph

124 BC(1)(c). Consequently, Division 10AB does not permit an outright deduction for expenditure on constructing such facilities.

41. Before 1 July 1991, for a waste residue or disposal facility to be depreciable it had to be used, or installed ready for use, for the purpose of producing assessable income. If a taxpayer uses property on or after 1 July 1991 for rehabilitation-related activities, that use is deemed to be for the purpose of producing assessable income (subsection 124BF(1)).

42. Consequently, from 1 July 1991, a deduction is allowable under the general depreciation provisions for a mudlake, initial containment area, tailing dam, or other industrial residue or waste disposal facility used in rehabilitation-related activities but not actually used, or installed ready for use, for the purpose of producing assessable income. If the effective life of such a facility is less than 3 years, the cost of the plant is deductible in the year it is first used for rehabilitation-related activities.

### **Division 10D - Capital expenditure on income-producing structural improvements**

43. Under Division 10D the capital cost of income-producing structural improvements not otherwise written off under the ITAA is evenly deducted over 40 years at a rate of 2.5% each year. The Division applies to structures commenced to be constructed after 26 February 1992.

44. The term 'structural improvement' is not defined. The Explanatory Memorandum to *Taxation Laws Amendment Bill (No.3)* 1992, which proposed the relevant amendments to Division 10D, said that structural improvement 'means property constructed on land out of material or related parts which improves the land'. Retaining walls and concrete or rock dams are examples of structural improvements (subsection 124ZFB(2)). Earthworks that are structures but are not integral to another eligible structure do not qualify unless they deteriorate over time, so as to require replacement.

45. The capital cost of the various waste disposal and storage facilities addressed in this Ruling can be written off under other provisions of the income tax law. Accordingly, no deduction is allowable under Division 10D for the cost of such a facility (subsection 124ZG(3)).

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## Examples

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### Mudlake with effective life of three years or more

46. XYZ Ltd incurred expenditure in constructing an earthen walled containment area (a red mud dam) to dispose of waste generated from a mining process. The company estimated that it would take 10 years to fill the dam.

47. The mudlake is plant for the purposes of section 54. The mudlake plays an integral part in the company disposing of the waste (see paragraphs 23-24). Expenditure on constructing the facility is capital in nature and therefore not deductible under subsection 51(1) because the expenditure provides the taxpayer with the enduring benefit of a waste disposal facility which can be used for many years.

### Mudlake with effective life of less than three years

48. However, if XYZ Ltd decided not to incur expenditure on such a permanent facility but to incur it on lesser facilities with an effective life of less than three years, the company is entitled to deduct the full cost of the mudlake in the year it is first used, or installed ready for use, for the purpose of producing assessable income. A 100% depreciation rate applies because the effective life is less than 3 years.

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- tailings dams
- waste disposal

*legislative references*

- ITAA 51(1); ITAA 54; ITAA 55(1);  
ITAA 57AG; ITAA Division 10;  
ITAA Division 10AB; ITAA  
Division 10D

*case references*

- IRC v. Barclay Curle & Co. Ltd [1969]  
1 All ER 732
- Cooke v. Beach Station Caravans Ltd  
[1974] 3 All ER 167
- J. Lyons & Co v. The Attorney-General  
(1944) 1 All ER 477
- Moreton Central Sugar Mill Co Ltd v.  
FC of T (1967) 116 CLR 151
- Mount Isa Mines Ltd v. FC of T 91  
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