

Endowments | Best Practice Note

1. Introduction

The purpose of this Best Practice Note is to provide guidance to Project Officers in justifying the use of endowments, the potential recipient organisations, the conditions of use, and the appropriate method for calculating the endowment sum, which may vary according to HCA's own objectives and the nature of the asset.

The note should be read in conjunction with the HCA's Financial Framework.

2. Policy Context

2.1 Fit with Homes and Communities Agency's Corporate Objectives

The use of endowments should always be referenced back to the HCA's Corporate Objectives as set out in the extant Corporate Plan which outlines seven Corporate Priorities that reflect its current delivery role; those particularly relevant to the use of endowments are:

- *Increasing private sector housing starts through market interventions*
- *Bringing surplus public land to the market; and*
- *Supporting local economic growth*

The HCA has three key objectives in relation to our landholdings:

- *Being transparent about our landholdings and our disposal principles and selling land in a way that creates a level playing field for potential end users to access sites when they are brought to market*
- *Not holding land longer than necessary – making sure it is disposed of to support local plans and ambitions and that it is transferred to end users as quickly as possible.*
- *Carrying out disposals on terms that promote development, economic activity and growth (e.g. Build Now: Pay Later)*

Alongside sites with housing or commercial development potential, HCA's portfolio includes sites that are residuary liabilities or community-related assets such as public open space, structural landscape, woodland and infrastructure such as roads and footpaths, pumping stations or watercourses. Some of these landholdings have very limited potential uses e.g. grass verges; but others may have potential alternative uses in the longer term which could generate some element of asset value.

As part of ensuring the Agency has an exit strategy for all its landholdings this will include sites with no or little development potential, subject to resources. We are

continuing to transfer many of these sites to local authorities, trusts and other statutory bodies, including hard infrastructure such as roads and footpaths, small residuary holdings in a number of the former new towns, and open space including in the coalfields communities.

The use of endowments to help provide a mechanism for disengagement and to underpin the long-term sustainable management of new community assets created through the delivery of HCA's programmes is therefore an important tool in the delivery of this policy agenda.

3. Definition and Issues

3.1 What is an endowment ?

An endowment is a transfer in the form of cash or other income generating assets to another party for a defined purpose (usually to support future operating costs and periodic maintenance) with the expectation that no other public sector investment should be required in the foreseeable future and the endowment therefore enables a clean-break from future involvement. On occasions, HCA might expect other public sector investment to take place on a site which is being transferred with an endowment (for example, where HCA transfers a site for development for various community uses, but where the local authority might be expected to help fund changing facilities as part of the transfer agreement).

The endowment sum will normally be inclusive of VAT

3.2 Why does HCA use them ?

Endowments provide an exit route from involvement with, or responsibility for, a particular asset or site. They enable the future responsibility for an asset to be placed with another organisation which is better suited to managing it in the long term. Endowments can protect the financial and amenity value of previous public investment in an asset by allowing it to operate and be maintained to an acceptable standard in the future.

Other terminology commonly used for an endowment may include a dowry, commuted sum, or reverse premium. The Charity Commission also uses the term "Permanent Endowment" (see Annex 2 for definition).

4. Best Practice

4.1 Circumstances when endowments can be used

Endowments may be used in some or all of the following circumstances:

- HCA wishes to comply with its New Town disengagement remit;
- The Agency desires to remove its direct or indirect interest¹ in land or property or infrastructure, referred to generically throughout this BPN as "assets", in a given location;

¹ i.e. HCA may not necessarily own

- There is a need for public sector investment to provide for the future management and operation of an asset;
- HCA wishes to protect the value or amenity benefit of previous or associated public sector investment, and to secure the continued operation and maintenance of an asset for public benefit;
- The costs associated with maintaining and operating an asset are greater than any income to be generated from it or available to it from other sources, and the asset is to be maintained for public use;
- It is believed that an organisation other than the HCA could more effectively and appropriately undertake the ownership and management of an asset; and
- No other public or private sector resources are available or are likely to be available in the foreseeable future in relation to the asset.

4.2 Rationale for considering an endowment - Key Questions to ask

The provision of an endowment must be justified in order to show that it is an effective use of public sector resources. When making the case for the provision of an endowment, HCA should be able to provide a satisfactory answer to the following questions:

- What would be the outcome if the endowment was not provided? Issues should be considered in terms of the impact on previous or associated investment, the safe-guarding of benefits (e.g. the consequential loss of benefits previously created), and the do nothing scenario or reference case if no endowment is provided;
- Will the endowment enable HCA to meet its short, medium and long term disposal and policy objectives?
- Will the endowment and transfer of land help to meet local objectives?
- Can the provision of the endowment be associated directly with the Agency's or partner organisation activities or assets held in the area? Will the endowment and any associated transfer of ownership and/or interest affect the outcome of other disposals or project negotiations the Agency is currently engaging in?
- Is this the optimal time to provide the endowment? Does timing significantly affect the size, type, or terms that could be achieved? Is it possible that circumstances may change in the near future (for example, from associated regeneration activity) which would negate the need for an endowment altogether?
- Can HCA clearly demonstrate that the proposed endowment is "value for money" in terms of selecting the most appropriate transferee?
- Have the interests of third parties been considered, who might be affected by the endowment (i.e. parties not subject to the endowment agreement) or any associated change in ownership? Such parties may include the local community, local authority, and adjacent landowners. Could there be any repercussive implications on HCA or its partner agencies?

- Given the underlying principle of not conferring future financial benefit (see below), has the Agency properly considered the ability of the future owner to manage an asset more efficiently over time, possibly decreasing costs, achieving economies of scale, increasing its income generating potential, or releasing development value from the asset?
- Are there other more appropriate funding sources which could be used? Could the endowment be provided alongside other public or private sector investment as part of a package of long term funding?
- If the endowment is to accompany land disposal, is it possible to parcel the land requiring an accompanying endowment together with developable land (i.e. a mixed land portfolio) in order to reduce the size of the endowment or the need for an endowment altogether, and hence reducing gross cash expenditure? Could better value be achieved and/or time savings made within the overall disposal process by putting together several endowment packages as one?
- If the endowment proposal is novel or contentious, has a formal assessment of options been undertaken as part of the rationale case for proposing the endowment?

5. Underlying principles for the endowment

The fundamental principle underlying the provision of an endowment is that it should be calculated at a level which will not confer future financial benefit on the recipient beyond that considered necessary to secure the future management and maintenance of the asset for public benefit. If there is a financial benefit, this should be no more than compensates for the level of risk being accepted.

On occasion, HCA will be requested to offer an indemnity alongside a potential endowment. The granting of an indemnity should be resisted and should only be considered as a last resort (and then only with specific DCLG approval). This is because it means that, despite paying an endowment, HCA will have failed to disengage totally and will still have a potential, contingent liability.

6. Key inputs and calculation methodology

Having established the rationale, a series of ten steps should be followed to determine the appropriate form and size of endowment. The methodology may vary depending upon the nature of the asset in question, HCA's objectives in providing the endowment, and whether the Agency is satisfied that there are protections which can be put in place to ensure the prudent financial management of the endowment into the long term and the continued upkeep of the associated asset as expected.

Steps 1 to 7 should be considered by HCA prior to entering into negotiations with potential recipients, either directly or following a competitive process. However, the choice of recipient and the terms of clawback and control may make it appropriate to revisit Homes and Communities Agency' base assumptions in Steps 2 to 7 in the light of the proposed recipient and practical delivery arrangements for the provision and use of the endowment.

6.1 Define the endowment proposal and HCA's Objectives – Step 1

Firstly, the Project Officer should clearly set out the purpose of the endowment and the nature of the asset to which it relates.

Secondly, it is necessary to clarify HCA's objectives in making the endowment. Objectives in providing any endowment should encompass one or both of the following, which include providing overall value for money to the public purse:

- *Underpin and protect previous public sector investment; AND / OR*
- *Enable the disposal of an asset, whilst seeking to minimise financial cost to the Agency, subject to securing the most appropriate delivery / management outcome for the future management of the asset.*

The Project Officer should agree the overarching objective to inform the choice of appropriate calculation methodology in Step 10.

6.2 Time horizon – Step 2

The purpose of an endowment is to provide a one-off payment to cover future expected costs associated with the ownership and management of a particular asset. However, the time period over which costs should be accounted for within a related endowment will depend upon the nature of the individual asset.

Based on historic and accepted practice within the HCA, **30 years** is considered to be the baseline time period over which all expected costs should be included within an endowment. However, in calculating a specific endowment, Project Officers should consider the specific circumstances of the asset and its management requirements in determining whether the endowment should be limited to costs projected over a more limited period than 30 years, or indeed, whether it should actually cover costs over a longer term. It may be justifiable to allow for costs **in perpetuity**². The following factors should be taken into account in determining an appropriate time period:

- **Usage/demand** – there may be a change in the future usage and demand for the asset, and in social and economic priorities, which it may be currently difficult to predict beyond the medium term;
- **Function** – the asset may perform a specific function which may or may not be required after a period of time;
- **Location** – changes in land uses and statutory planning designations may affect the location and surroundings of an asset which may impact its future use and function (for example, urbanisation or ruralisation, closure of neighbouring industrial complexes, or land use intensification resulting in relaxation of Green Belt status);

² In relation to endowments, "in perpetuity" refers to the circumstance where costs are incurred over an infinite time period. Costs incurred at regular / even intervals over an infinite time period can be discounted and summed to a precise net present value, hence avoiding the need to approximate "in perpetuity" endowments to a long term time period.

- **Necessity** - the asset may perform a function which a future owner could be statutorily or morally obliged to provide, regardless of the resources available to maintain, repair or replace the asset;
- **Public service** – the asset may provide a basic public service or amenity which is likely still to be required after 30 years;
- **Loss of funding** – the time period should take into account the severity of any adverse impact resulting from a future loss of funding, either from the endowment or from other revenue sources (for example, the anticipated 20 year life of a wind farm);
- **Mainstream other funding** – the endowment recipient may have recourse to other funding streams which it may become acceptable and appropriate to access over time (for example, local authorities using council tax income).

The type and status of potential recipients may also affect the time period over which the endowment should be calculated. However if the justifiable time period is clearly no longer than 30 years, then the endowment should be calculated on a 30 year basis (see Step 10), regardless of any controls which it may be possible to put in place over the use of the endowment funding. Note, that the need to allow for long term maintenance should relate to the type of asset and its function, and not necessarily to the size of any recent public sector investment.

6.3 Maintenance costs – Step 3

Annual and periodically recurring maintenance costs should be negotiated and agreed in detail with the intended recipient organisation and should be specific to the asset being considered.

The proposed recipient of the dowry will be required to submit a detailed, itemised business case and endowment proposal to the Agency for consideration, including evidence of future costs.

In preparing the full case for an endowment proposal, a bespoke costing exercise by a RICS-qualified professional should normally be undertaken in most cases. However, depending on the size and type of project, other sources may be used for establishing base costs:

- **Historical actual costs** – for sites which have been in HCA ownership for a number of years and actual costings are available;
- **Comparables** – where similar sites have been managed internally and/or endowed, and the cost estimates are directly transferable to the asset in question;
- **Indicative benchmarks** – for standard public open space assets, where HCA's research has collated a schedule of relevant indicators for use in benchmarking maintenance costs.

Costs should be considered in **real terms** unless there is strong case for different long term inflation rates for specific cost and/or income items.³

Periodic maintenance (requiring expenditure at intervals anticipated longer than one year), can also be included. The methodology for converting anticipated periodic costs to annualised maintenance costs should utilise sinking fund principles (i.e. the investment of a regular sum to accumulate over a defined period of time to cover the non-annual costs when they occur) to be calculated from the amount of £1 p.a. investment tables (see Annex 3 for annuity factors and worked example).

In setting base costs, consideration should be given to future risks and uncertainties which may affect costs, and hence any explicit allowance for contingency which should be included.⁴ Uncertainties may vary by asset type, location, market conditions and economic circumstances, such as unexpected vandalism, changes in law, increase in cost inflation.

In negotiating with potential recipients, the comparison of HCA's base costs estimates against recipients' costs estimates will be important for highlighting cost savings from economies of scale, competitive tendering, and/or the use of local labour networks, and any additional costs resulting from the setup of new organisations or other non-standard cost items.

It should be acknowledged that all endowment calculations are a financial deal which must be acceptable to both parties, and as such the process of negotiating and agreeing costs will need to take into account wider considerations such as the demand from potential recipients or alternative exit strategies.

6.4 Replacement costs – Step 4

Whilst the purpose of an endowment is principally to cover future revenue costs of maintaining an asset, an allowance may be included to cover specific and important future capital replacement works, over and above routine repairs and maintenance works. **Although capital replacement items could be recognised as legitimate components of an endowment calculation, the presumption should be that HCA will not as a matter of course fund these items, unless it can be shown that they are integral to the on-going functioning and use of the asset.** However, in all cases, Project Officers are encouraged to explore other sources of funding to contribute to these elements of the scheme.

HCA should consider whether these items are integral to the on-going functioning and use of the asset, the protection of any projected revenue stream, and the likelihood that these specific works will actually need to take place at the estimated time. For example, the owner of an asset may have a legal obligation to maintain and replace capital components for health and safety reasons or to ensure continued public usage. The costs of replacement of assets should be considered at the earliest opportunity and form part of the brief to consultants since robust materials and the quality of design will have a major bearing on the costs of replacement.

³ For specific items where notably high or low inflation is expected over the long term, the real values can be adjusted for the difference between item specific inflation rates and general inflation rates using following formula: $(1 + \text{real cost adjustment}) = (1 + \text{specific inflation}) / (1 + \text{general inflation})$.

⁴ An allowance for contingency in excess of 5% of base costs would not normally be allowed.

An allowance should only be included if the costs are significant in relation to the total size of the endowment, and the availability of other resources to the recipient are such that the works would otherwise not be funded, to the detriment of the future use of the asset. In assessing replacement costs, the Project Officer should distinguish between costs vital to the on-going functioning of the asset to an acceptable standard, and optional extras which may serve an aesthetic purpose, or purpose for a limited time period only. The timing of any capital replacement works should be agreed.

In relation to specialist or complex assets, the inclusion of capital costs within the endowment sum may be justifiable if it enables the transfer of responsibility for an asset to an appropriate body at the lowest acceptable cost in comparison with reasonable alternatives.

The methodology for converting anticipated capital replacement costs at agreed intervals to annualised costs can either utilise the sinking fund principle and amount of £1 p.a. investment tables (as for periodic maintenance), or can follow a business plan approach (see Annex 1).

6.5 Other costs – Step 5

A provision may be included within the endowment sum for annual costs associated with management, administration and other overheads. Experience within HCA indicates that a maximum of **15% of annualised maintenance costs** will be allowed for this purpose and applicants will be expected to provide a clear rationale for these costs as part of their business case. If an asset being considered for transfer with an endowment is not currently in a reasonable condition then HCA may consider the provision of a capital sum to the endowment recipient to undertake initial works to bring the asset to an acceptable condition, if it is not considered appropriate for HCA to undertake such works itself prior to transfer. This would be in addition to the funding to cover an on-going programme of maintenance and management.

Depending on the nature of the asset in question, and the demand from potential recipients to receive the endowment, HCA may consider covering feasibility and set up costs incurred by the recipient in arranging the endowment. However, this should be limited to consultants and advisors fees, surveys, and other identifiable cost items, but should not include time incurred by the recipient's own staff where the work undertaken is within their normal business activities.

6.6 Sources of income / revenue – Step 6

In addition to future costs, any current or potential future income available to the recipient generated by the asset should be taken into account when calculating the endowment sum. The assessment should be based upon a reasonable forecast or projection of anticipated revenue over the life of the asset, considering the timeframe over which the income will be available. It may be necessary to undertake sensitivity analysis to test the potential impact upon the size of the endowment under optimistic and pessimistic forecasts of anticipated revenue. **The endowment calculation should be based on costs net of income.**

In some circumstances, it may be possible to package development sites (with positive value) with liability sites (requiring an endowment) in order to reduce or remove the level of endowment funding required, subject to wider policy and disposal considerations. Where this is appropriate the current market value of the development sites should be netted off the calculated endowment sum for the liability sites, on the basis that the positive site valuation is an assessment of the present value of the future positive income stream.

6.7 Discount rate – Step 7

In order to calculate the endowment sum, an appropriate discount rate must be agreed. The rate needs to reflect the ability of the endowment capital to cover the future profile of costs, and hence the likely return on investment of the capital prior to expenditure. If the profile of costs and income is irregular, as discussed in the calculation method section below, it may be necessary for the recipient to incur borrowings over a short period to cover cashflow shortfalls. Therefore a suitable borrowing rate may also need to be agreed.

With respect to the discount rate, HCA should (but subject to future review) use a **real rate of 3.5%**. 3.5% is recommended on the basis that it is representative of the level of long-term real⁵ rates of return achievable in the investment marketplace on a portfolio of low to medium risk investments, net of fund management charges.

This recommendation for the adoption of 3.5% as the discount rate should not however be confused with HM Treasury's Social Time Preference Rate used in pan-government economic appraisals and evaluations, which is set out within the current edition of HM Treasury's Green Book at a rate also of 3.5%.

6.8 Recipient – Step 8

Depending on the nature of the asset to which the endowment is related, various organisations may be suitable to receive the endowment⁶. **All possible recipients should be considered at the initial stage.** Undertaking a competitive tender process should be encouraged, in order to ascertain interest from potential recipients and to ensure that value for money is achieved, especially in the case of complex or specialist assets.

Potential recipient organisations may include local authorities (district, county, or parish councils), not-for-profit or charitable organisations, trusts or other specialist public or private sector organisations. If a suitable and willing recipient is not available, the establishment of a bespoke organisation⁷ to receive the endowment and manage the asset should be explored. However this may incur significant additional set up costs⁸ and extended timeframes which will need to be appraised in the context of the long term value for money of this approach in comparison with alternatives. Bespoke organisations may also be limited in their ability to benefit from economies of scale hence cost estimates may exceed those of larger

⁵ To convert real and nominal rates of interest, use the formula: $(1 + \text{real}) = (1 + \text{nominal}) / (1 + \text{inflation})$

⁶ Reference should be made to *Managing Public Money* for further information.

⁷ Examples include Milton Keynes Park Trust.

⁸ It has been HCA's practice to pay 'reasonable' set up costs for recipient organisations (e.g. cost of transferring land, site appraisal)

organisations. In assessing potential recipients, consideration must be given to their financial stability and financial and management expertise, in addition to the costs estimates and the endowment sum requested. HCA's financial vetting procedures must be followed prior to any final selection decision.

The factors to be considered include:

- Legal status of the recipient and the corporate and regulatory framework in which they operate. This may influence the terms of the funding agreement to be agreed, and the presence of direct or indirect controls over the investment and draw-down of endowment funds, both interest generated and capital;
- Investment strategy for the endowment capital, and any restriction on the ability of the recipient to invest, which may affect the appropriate discount rate to be used;
- Availability of other resources in the future which the recipient may be able to access;
- Experience of the recipient organisation in managing projects of a similar scale and complexity
- Size of the recipient organisation and the amount of similar activity in which they engage, hence any economies of scale which may be achieved in both reducing costs and improving investment returns;
- Direct or indirect controls over the execution of the expected maintenance programme and, if appropriate, capital replacement works.
- Are the plans for the asset by the potential recipient financially viable and/or is there a clear and identifiable funding stream to support their activities into the future?
- What assurances can be given as to on-going strength and financial viability of the potential recipient organisation? What would happen if they failed?

6.9 Clawback – Step 9

The starting presumption is that HCA will not include any clawback provisions in the disposal, but reserves the right to consider such terms within the endowment agreement on an individual basis in consultation with DCLG.

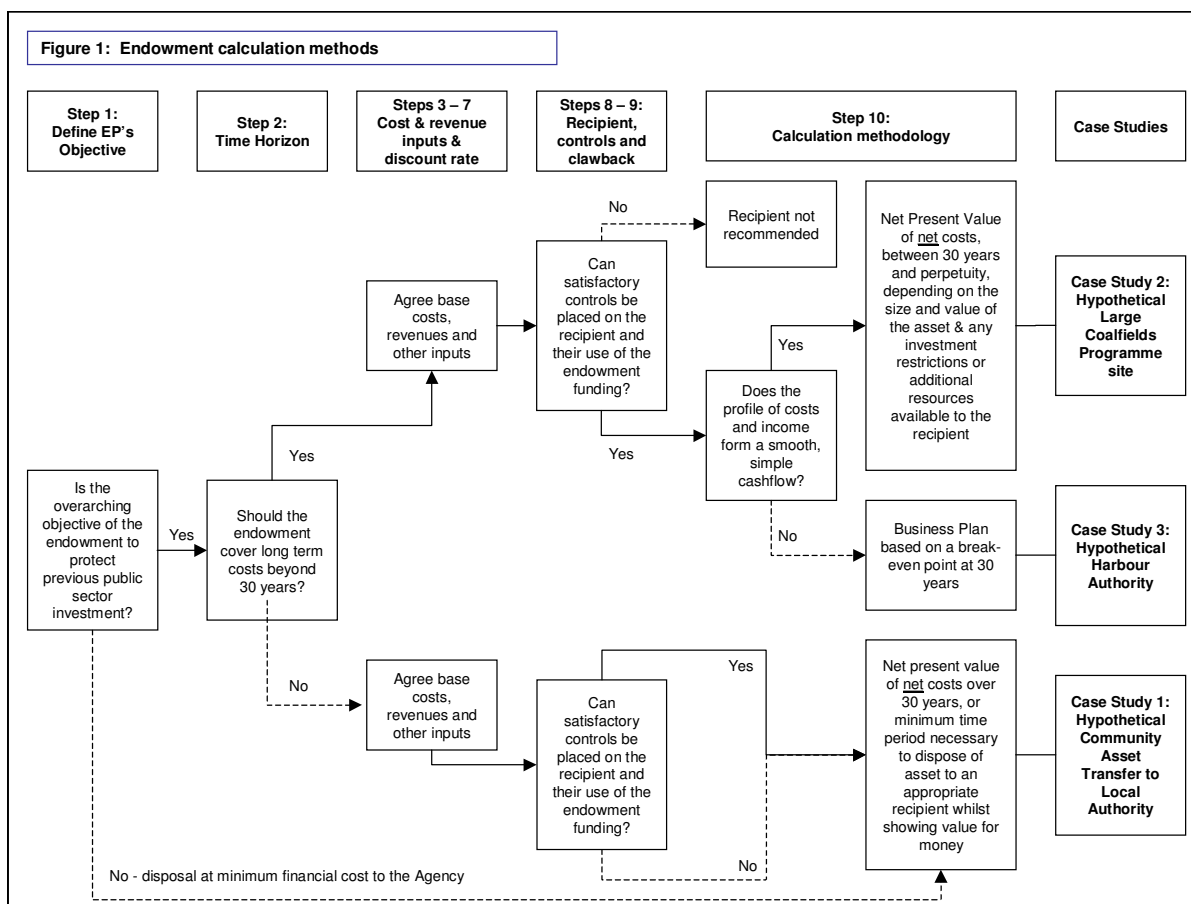
Connected to this, DCLG has requested that sites are transferred with minimal 'trailing wires', reflecting the low likelihood of alternative use development and the nature of the recipients. It has in individual cases made exceptions from this, where the commercial issues around the use of the site require a bespoke solution. Any proposals for use of restrictions/clawback need to be considered with DCLG on a case-by-case basis.

The monitoring of any terms and controls should not be too onerous to HCA staff, bearing in mind the overarching aim of the endowment is that of disposal and/or the removal of HCA's on-going responsibility.

6.10 Calculation method – Step 10

Having followed each of the preceding steps, a Project Officer should now consider the methodology for calculating the endowment sum. The flowchart presented in Figure 1 below summarises each of the ten steps and should be used as a guide to selecting the appropriate method for calculating the endowment.

The Case Study examples referred to in the flow chart are included in Annex 1.



The flowchart provides four possible outcomes for the endowment calculation outlined. These outcomes are outlined below:

1. **Recipient not recommended** - It is possible that the future ownership of an endowment or asset may not be appropriate to a particular recipient being considered, particularly if it is not possible to contractually secure the future maintenance of the asset or to ensure the appropriate use of the endowment capital once provided. In such circumstances, it is not recommended that an endowment is provided. Alternative recipients or other long term funding solutions should be explored.
2. **Net present value of 30 year net costs** - If the objective of the endowment is to accompany the disposal of an asset at minimum cost to the Agency, then a 30 year discounting method should be used as a means of determining an appropriate financial sum which Homes and Communities Agency considers

sufficient to be acceptable to a third party. The method to be used should involve the discounting of annualised net costs in advance⁹ (i.e. anticipated maintenance/management costs less projected income) over a 30 year period to obtain the Net Present Value, at the appropriate discount rate (see 6.7 above).

The same method should also be used, even if Homes and Communities Agency' objective is to protect the value of previous public sector investment into the associated asset, if the nature of the asset is such that it is not considered value for money at the present time to account for longer term costs, due to uncertainties as to whether the asset will still perform the same function beyond 30 years.

Case Study 1, Annex 1 illustrates a typical spreadsheet style cashflow for calculating the endowment in this manner. DCLG require HCA to demonstrate that the Endowment reduces to zero at the end of the agreed timeframe. The 'Reducing Balance' mechanism for demonstrating this is also illustrated in Case Study 1.

3. **Net present value of long term net costs** - If there is significant justification that the endowment should cover long term costs, and direct or indirect controls will exist to protect both the endowment capital and to ensure that the asset is properly maintained, then expected costs (and potential income) over a longer period may be accounted for within the endowment calculation. The Project Officer will need to set **an appropriate time period, between 30 years and in perpetuity**, taking into account the nature of the asset (see Section 6.2), and potential recipient organisation (see Section 6.8). If the profile of the costs and income is relatively smooth then the method of discounting all net costs to the present value is recommended¹⁰.

Case study 2 illustrates the methodology and a typical spreadsheet cashflow for this approach.

4. **Business Plan model** – this method is an alternative cashflow-based approach which can be used if it has been agreed that the endowment will be calculated on a perpetuity basis, and where either the profile of projected costs and incomes is expected to be very complex, or where for example, up-front or early capital expenditure for critical infrastructure maintenance is required as part of the endowment approval.

Depending upon the nature of the asset, the anticipated maintenance and management cost profile may not occur annually (for example, periodic maintenance may be required at 3, 5, or 10 year intervals), and there could be a significant number of non-annual maintenance costs to be taken into account in the calculation of the endowment sum. Similarly, capital replacement costs will occur at periodic intervals (if these are accepted for inclusion in the endowment calculation), and other factors such as the recipient's tax status may also need to be considered. In such circumstances it may be more appropriate to consider a business plan approach to determine the endowment, rather than performing a simple discounting calculation.

⁹ Depending on the project it can be appropriate to present costs as mid – year or in arrears

¹⁰ The present value of regular annual costs incurred in perpetuity can be calculated using the following simple annuity formula: Present value = annual cost / discount rate

All anticipated costs and potential income sources should be set out in the form of a detailed cashflow analysis to calculate net annual costs, with an endowment sum calculated such that the interest generated by the endowment each year will be sufficient to ensure that the cumulative cashflow of the operating and periodic maintenance costs of the asset breaks even at the end of 30 years. The assumption for a break even position at 30 years is based on the rationale that 30 years is a reasonable medium term timeframe, beyond which a detailed profile of costs and income cannot be accurately predicted.¹¹ It is likely that the cashflow will show both cumulative surpluses and deficits over the 30 year time period. When agreeing an appropriate level of endowment, the Project Officer should consider the practicalities, costs and reasonableness of any expected borrowing to cover short term cashflow deficits.

Beyond, the medium term 30 year period, it is implicit within the model that cashflow projections simply repeat into perpetuity. The key to this calculation approach is that the endowment capital is not eroded but its value preserved, in real terms, and will continue to generate annual interest to help underpin the long term management/maintenance of the asset.

Case study 3 illustrates the methodology and a typical spreadsheet cashflow for this approach.

¹¹ In the event of a profile of very uneven year by year net cashflows, the endowment capital may be very sensitive to slight changes in the medium term time period assumed. It is therefore suggested that in such circumstances the Project Officer should test the sensitivity of the endowment calculation to the break even time period by varying the time period between, say, 28 and 32 years, and thereby analysing the resultant endowment sums which are produced to ensure the agreed endowment is reasonable.

ANNEX 1
ENDOWMENT CALCULATION METHODS
CASE STUDY EXAMPLES

CASE STUDY 1: ENDOWMENT CALCULATION METHOD: NPV 30 YEARS OF COST / INCOME PROFILE

HYPOTHETICAL COMMUNITY ASSET TRANSFER TO LOCAL AUTHORITY

End use: 15 ha Community Park, including play areas. Small 0.5 ha site rented privately for paddock use

Key Assumptions

Current price base year:	2004/05 (Year 1)
Site Area	15 ha
Discount rate	3.50% current assessment of real rate of return
Annual maintenance costs (agreed with local authority)	£75,000 p.a
Annual management rate (agreed with local authority, capped at 15% of maintenance costs)	£11,250 p.a
Income from paddock	£1,500 p.a

Illustrative cashflow

	Yr 0 Pre 2004/05	Yr 1 2004/05	Yr 2 2005/06	Yr 3 2006/07	Yr 4 2007/08	Yr 5 2008/09	Yr 6 2009/10	Yr 7 2010/11	Yr 25 2029/30	Yr 26 2030/31	Yr 27 2031/32	Yr 28 2032/33	Yr 29 2033/34	Yr 30 2034/35
Discount factor		1.0000	0.9662	0.9335	0.9019	0.8714	0.8420	0.8135	0.4380	0.4231	0.4088	0.3950	0.3817	0.3687
Transfer to Local Authority														
Annual maintenance costs (gross)		£75,000	£75,000	£75,000	£75,000	£75,000	£75,000	£75,000	£75,000	£75,000	£75,000	£75,000	£75,000	£75,000
Annual management costs (gross)		£11,250	£11,250	£11,250	£11,250	£11,250	£11,250	£11,250	£11,250	£11,250	£11,250	£11,250	£11,250	£11,250
Income from paddock		-£1,500	-£1,500	-£1,500	-£1,500	-£1,500	-£1,500	-£1,500	-£1,500	-£1,500	-£1,500	-£1,500	-£1,500	-£1,500
Net annual maintenance cost		£84,750	£84,750	£84,750	£84,750	£84,750	£84,750	£84,750	£84,750	£84,750	£84,750	£84,750	£84,750	£84,750
Discounted net annual cost		£84,750	£81,884	£79,115	£76,440	£73,855	£71,357	£68,944	£37,117	£35,862	£34,649	£33,477	£32,345	£31,251
NPV 30 Years Cost / Income profile		£1,613,281												

Reducing Balance Method

	Yr 0 Pre 2004/05	Yr 1 2004/05	Yr 2 2005/06	Yr 3 2006/07	Yr 4 2007/08	Yr 5 2008/09	Yr 6 2009/10	Yr 7 2010/11	Yr 25 2029/30	Yr 26 2030/31	Yr 27 2031/32	Yr 28 2032/33	Yr 29 2033/34	Yr 30 2034/35
Assuming costs incurred at start of year														
Endowment sum		£1,613,281												
Net annual maintenance cost		-£84,750	-£84,750	-£84,750	-£84,750	-£84,750	-£84,750	-£84,750	-£84,750	-£84,750	-£84,750	-£84,750	-£84,750	-£84,750
Interest on endowment		£0	£53,499	£52,405	£51,273	£50,101	£48,888	£47,633	£15,806	£13,393	£10,895	£8,310	£5,635	£2,866
Balance of endowment sum after costs and interest		£1,528,531	£1,497,280	£1,464,935	£1,431,457	£1,396,808	£1,360,947	£1,323,830	£382,651	£311,293	£237,439	£160,999	£81,884	£0

CASE STUDY 2: ENDOWMENT CALCULATION METHOD: NPV IN PERPETUITY OF COST / INCOME PROFILE

HYPOTHETICAL LARGE COALFIELDS PROGRAMME SITE

End use: Forest Park, with 10ha given over to wind farm development

Key Assumptions

Current price base year:	2004/05 (Year 1)
Endowment 'core' rate of return (based upon real rate of return achievable in market)	3.5% p.a
Maintenance Rate (based on discussions with Forestry Commission)	£700 per ha p.a
Site Area	100 ha
Annual maintenance cost (gross)	£70,000
Annual income from Wind Farm (20 year economic life, from Year 6 to year 27 only)	£30,000
Endowment payment made to Management Vehicle	2008/09 (Year 5)

Illustrative cashflow

	Yr 0 Pre-2004/05	Yr 1 2004/05	Yr 2 2005/06	Yr 3 2006/07	Yr 4 2007/08	Yr 5 2008/09	Yr 6 2009/10	Yr 7 2010/11	Yr 8 2012/13	Yr 9 2013/14	Yr 26 2030/31	Yr 27 2031/32	Yr 28 2032/33	Yr 29 2033/34	Yr 30 2034/35
Discount factor		1.0000	0.9662	0.9335	0.9019	0.8714	0.8420	0.8135	0.7860	0.7594	0.4231	0.4088	0.3950	0.3817	0.3687
	Develop	Develop	Develop	Aftercare by contractor	Transfer to Management Vehicle (e.g. LRT)										
Annual maintenance costs (gross)				0	0	0	£70,000	£70,000	£70,000	£70,000	£70,000	£70,000	£70,000	Maintenance costs projected in perpetuity	
Income from wind farm development									-£30,000	-£30,000	-£30,000	-£30,000			
Net annual maintenance cost				£0	£0	£0	£70,000	£70,000	£40,000	£40,000	£40,000	£40,000	£70,000		
Discounted net annual cost				£0	£0	£0	£61,001	£58,938	£32,540	£31,440	£30,376	£16,926	£28,619		

Endowment calculation components

	Mechanics of calculation	
1. Net maintenance costs Years 1 to 26	Sum of Discounted net annual costs Yrs 1 to 26	£598,598
2. Net maintenance costs from Year 27 in perpetuity	Net Annual maintenance cost @ £70,000 p.a., capitalised in perpetuity @ 3.5%. Multiplier 28.57	£2,000,000
	Capitalised sum, discounted @ 3.5%, deferred until Yr 27, x 0.4088	£817,675
Total NPV Endowment cost (2004/05 price base)		£1,416,273
Note: for Economic Appraisal cost profiling		
	NPV Endowment cost at point of payment to Management Vehicle in Year 5 (2008/09). Divide by 0.8714	£1,625,284

CASE STUDY 3: ENDOWMENT CALCULATION METHOD: BUSINESS PLAN APPROACH (CASHFLOW MODEL WITH BREAK-EVEN POINT AT 30 YEARS)

HYPOTHETICAL HARBOUR AUTHORITY

Page 1 of 2

Endowment purpose: To underpin Harbour Authority and bridge gap between annual operational costs and income

Key Assumptions

Indexation	All income and expenditure at real (current day) values
Operational Income	Detailed modelling of berthing income, fish landing dues, car parking charges, concessions. Assumed that this increases over the early years as the usage of the harbour increases to full capacity.
Operational expenditure	Detailed modelling of staffing, premises, maintenance, administrative costs, insurances
Infrastructure maintenance costs	Detailed modelling of recurrent maintenance works required annually, 5 yearly, 15 yearly, 30 yearly intervals
Up-front capital works	Assumed that up-front capital works required to replace dock gates (£725,000 in Year 2). This is the only <u>capital</u> withdrawal assumed from the endowment.
Interest	Interest received on endowment investment: 3.5% real rate of return Interest received on positive cash balances: 3.5% real rate of return Interest payable on negative cash balances: 7.5% (assumed that Harbour Authority current account utilises bank overdraft facility to smooth income / expenditure profile)
Taxation	Corporation tax rate: 20%
Finance / funding	Assumed £7,500 p.a for 12 years from Town Council Assumed £80,000 p.a for 10 years from Local Authorities Capital receipts assumed from sale of Harbour land assets as Harbour develops out

Endowment Calculation Principles

Initial injection of endowment funding

Endowment cashflow modelled over 30 years, with cumulative cash balance zero at the end of 30 year period. Iteration around zero cumulative cash balance at end of Year 29 determines level of Endowment Injection at start (Year 0).

Endowment capital preserved at end of 30 years

Simulates in perpetuity position by preserving the base endowment balance beyond Year 30.

Model can be converted to provide on-going financial management tool. Allows monitoring of the endowment / cash balance over time - enabling projection of likely overdraft requirements

CASE STUDY 3: ENDOWMENT CALCULATION METHOD: BUSINESS PLAN APPROACH (CASHFLOW MODEL WITH BREAK-EVEN POINT AT 30 YEARS)

30 year cashflow	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 8	Year 9	Year 26	Year 27	Year 28	Year 29
Total Operating Income	£100,000	£115,000	£115,000	£120,000	£120,000	£125,000	£150,000	£150,000	£150,000	£150,000	£150,000	£150,000
Total Operating Expenditure	£125,000	£15,000	£170,000	£170,000	£170,000	£170,000	£170,000	£170,000	£170,000	£170,000	£170,000	£170,000
Net operating income/(expenditure)	£-25,000	£100,000	£-55,000	£-50,000	£-50,000	£-45,000	£-20,000	£-20,000	£-20,000	£-20,000	£-20,000	£-20,000
Interest												
Interest received on endowment	£35,021	£140,086	£114,711	£114,711	£114,711	£114,711	£114,711	£114,711	£114,711	£114,711	£114,711	£114,711
Interest received on positive cash balances	£0	£351	£0	£0	£0	£0	£4,392	£9,667	£14,400	£16,270	£18,906	£21,480
Interest paid on negative cash balances	£0	£0	£-16,428	£-10,946	£-3,210	£-27,895	£0	£0	£0	£0	£0	£0
	£35,021	£140,436	£98,282	£103,764	£111,500	£86,816	£119,102	£124,377	£129,111	£130,981	£133,616	£136,191
Taxation												
Corporation Tax paid/(received)	£0	£2,004	£-47,314	£13,119	£3,129	£-83,326	£10,881	£12,644	£30,669	£10,688	£15,059	£14,712
Capital expenditure (funding by endowment capital)			£725,000									
Infrastructure maintenance costs		£475,000	£25,000	£25,000	£475,000	£25,000	£25,000	£475,000	£25,000	£25,000	£25,000	£800,000
Net cash flow before financing	£10,021	£-236,568	£-659,404	£15,645	£-416,629	£100,141	£63,221	£-383,267	£53,441	£75,293	£73,558	£-698,521
Finance / funding	£0	£7,500	£7,500	£87,500	£87,500	£147,500	£87,500	£87,500	£0	£0	£0	£84,800
Removal of agreed level of endowment capital			£725,000									
Net cashflow	£10,021	£-229,068	£73,096	£103,145	£-329,129	£247,641	£150,721	£-295,767	£53,441	£75,293	£73,558	£-613,721
Cumulative cash balance	£10,021	£-219,046	£-145,951	£-42,806	£-371,934	£-124,293	£276,194	£-19,572	£464,870	£540,163	£613,721	£0
Endowment balance	£4,002,447	£4,002,447	£3,277,447	£3,277,447	£3,277,447	£3,277,447	£3,277,447	£3,277,447	£3,277,447	£3,277,447	£3,277,447	£3,277,447
Endowment requirement	£4,002,447											
End balance	£0											Endowment capital preserved in perpetuity
			↑									
			Capital withdrawal from the endowment allowed for initial infrastructure investment									

ANNEX 2

DEFINITIONS

Assets - Real and personal property. *Source: RICS Red Book*

Permanent Endowment - The Charity Commission uses the term “*Permanent Endowment*”, which is defined as a concept by many of the key principles underpinning endowments appropriate for the Homes and Communities Agency. The term, “*Permanent endowment*” is however specific to the Charity Commission, which it defines as the “*property of the charity (i.e. land, buildings, investments or cash) which the trustees may not spend as if it were income. It must be held permanently, sometimes it is to be used in furthering the charity’s purposes, sometimes to produce an income for the charity*”.

Property - All rights and interests in land (with and without buildings), Plant & Machinery and wasting assets unless the context clearly implies a more restrictive definition. The term applies also to other assets held as trading stock or work in progress, when the valuation is for the purposes of inclusion of a figure(s) in a Financial Statement. ‘Property’ will include ‘properties’ in the appropriate context. *Source: RICS Red Book*

Reference Case – The term used in appraisal that is the equivalent of the counterfactual in evaluation. A reference case may be the ‘do-nothing’ or the ‘do-minimum’ depending on the circumstances. *Source: Assessing the Impact of Spatial Interventions, DCLG*

Maintenance and Repair - The routine recurring work required to keep a facility, plant, building, structure, ground facility, utility system, or other real property in such condition that it may be continuously used, at its original or designed capacity and efficiency for its intended purpose.

ANNEX 3

CONVERTING PERIODIC MAINTENANCE / REPAIR & CAPITAL REPLACEMENT TO ANNUALISED COSTS

WORKED EXAMPLE: MANAGEMENT OF COUNTRY PARK

Apply Sinking Fund Principles to convert periodic to annualised costs (Utilise Amount of £1 p.a formula)	
Discount rate (%) = X	$\frac{((1 + (X/100))^Y) - 1}{(X/100)}$
Periodic occurrence (years) = Y	
Amount of £1 p.a, 5 years @ 3.5%	£5.36
Amount of £1 p.a, 10 years @ 3.5%	£11.73
Amount of £1 p.a, 15 years @ 3.5%	£19.30
Amount of £1 p.a, 20 years @ 3.5%	£28.28
Amount of £1 p.a, 25 years @ 3.5%	£38.95

Maintenance / Expenditure Items	Estimated maintenance / replacement cost	Periodic occurrence (years)	Annualised cost	
Site Staff	£15,000	Annual	£15,000	£15,000
Site Vehicle	£3,000	Annual	£3,000	£3,000
Replace footpaths	£70,000	20	£70,000 / 28.28 (see below)	£2,475
Replace boardwalks	£100,000	15	£100,000 / 19.30 (ditto)	£5,183
Replace fencing	£135,000	25	£135,000 / 38.95 (ditto)	£3,466
Planting Maintenance	£2,000	Annual	£2,000	£2,000
			Total annualised cost	<u>£31,124</u>