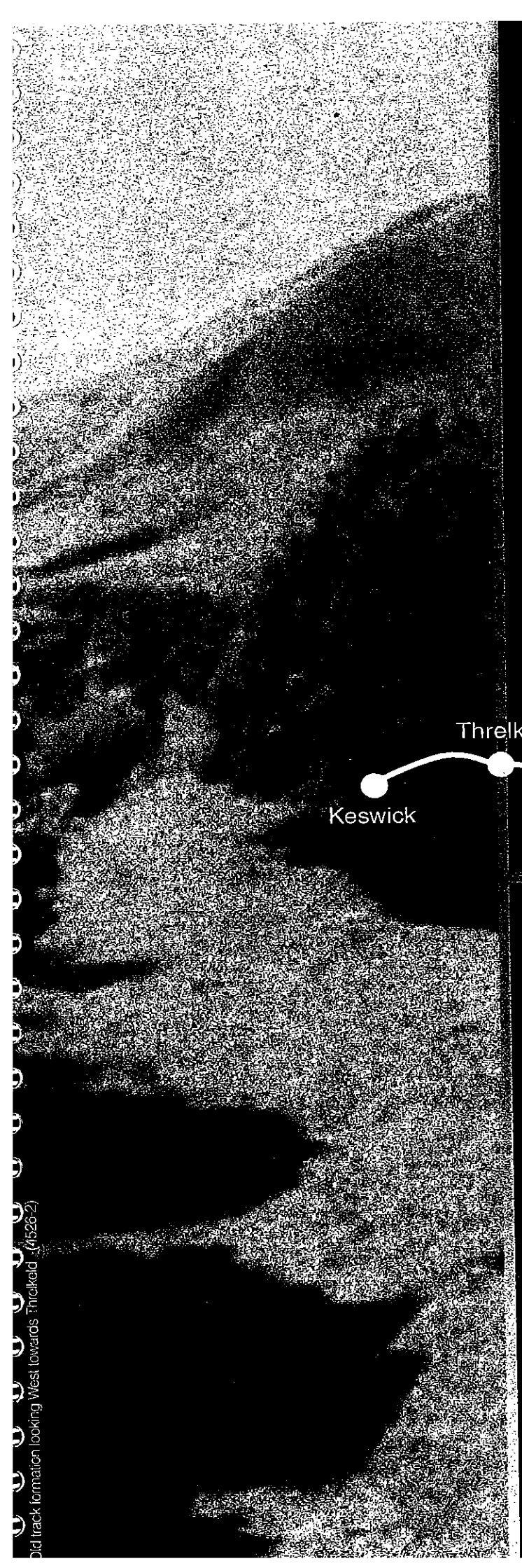
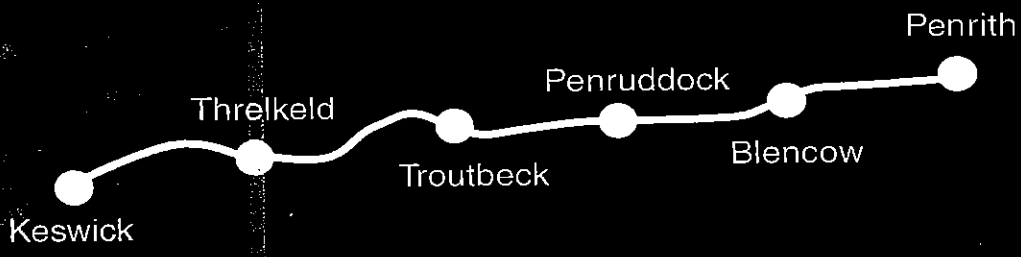


Old track formation looking West towards Threlkeld (4526-2)

CKP Railways plc

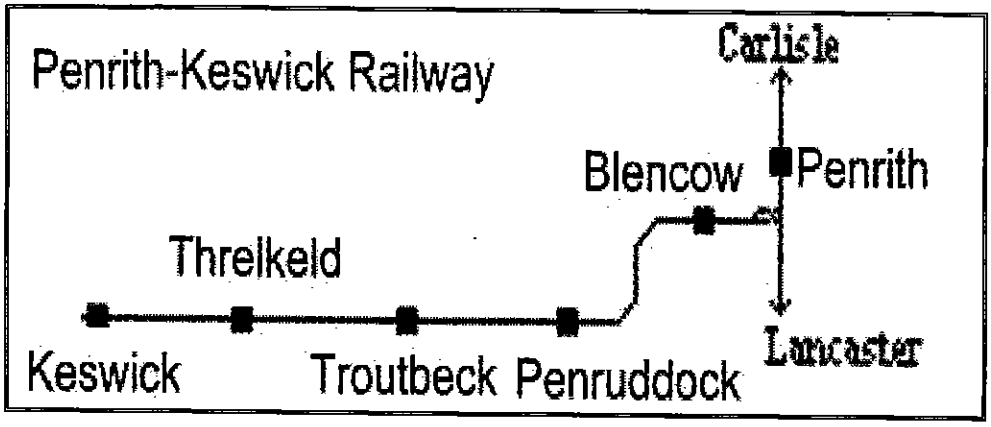
Summary Report for Cockermouth, Keswick & Penrith

January 2001



Brown & Root *Services*

Consulting



Proposed Scheme

Old Track Formation Looking West towards Threlkeld With Skiddaw in the background

CONTENTS

APPENDICES

1 INTRODUCTION

This Report was Commissioned by CKP plc in December 2000, to give a Professional Independent view on the current Proposal to Re-instate the old Railway from Keswick to Penrith.

It is co-authored by Brown & Root Services Consulting (BRS), Russell Bowler Environmental (RBE), Corus Rail Consultancy (CRC). CKP Railways plc

The Scheme is being sponsored and promoted by Iceni Enterprises Ltd of Carlisle.

2 BACKGROUND

The original railway opened in 1865 ran from Workington on the Industrialised West Coast of Cumberland via Cockermouth & Keswick to Penrith (33 miles), on the West Coast Main Line, (see Appendix A).

Ultimately using DMU's on an infrequent basis, the Line was never properly marketed nor it's potential exploited to the full, (see Appendix B) and was finally closed in 1972 by British Rail due to the perceived lack of public support and use, and the track removed.

Although some of the land has passed into other hands, a considerable proportion of the land, track bed and structures still remain in place, including the Junction at Penrith.

For over nine years the idea of reopening the 18.5 mile Railway between Keswick and Penrith has been promoted, discussed and examined in great detail by Mr C Martindale the MD of CKP plc.

The line proposed is to be an integral part of the National Rail System, and be available for use by any approved Train Operating Company.

Contact and discussions have taken place with all of the Public Transport and Planning Authorities involved, the Lake District National Park and Trust, the local Businesses and Land Owners. There has also been dialogue with Railtrack, the DETR, SSRA and two Train Operators.

The result of these has been favourable.

With the recent change in Public Transport's perceived Role, especially the Railways, and the operational patterns available the time is thought to be appropriate to develop the scheme further, (see Appendix B).

This Report aims to move the scheme forward officially, with a view of seeking the necessary Transport & Works Order if possible within the next 18-24 months, and be open for Public Traffic by January 2004 at the latest.

3 OUTSTANDING ACTIONS

The Work Sheet appended to this Report as Appendix G gives in more detail the outstanding actions, their timing and those to be involved. It is not a definitive list, but the main issues are listed in order of priority.

In summary

- A Management Team to be contracted
- The Scheme clearly defined
- Funding to be explored
- Engineering Options to be defined
- Environmental Impact Assessment (EIA) completed
- Public Consultation
- Transport & Works Order (TWO) application completed
- Delivery Support facilities & procedures set up
- Construction and Handover

4 PROPOSED WAY FORWARD

- It is the expressed intention of the Client to achieve the Objective of reopening the Keswick Line, in a manner, which can be used as a role model of Professional Teamwork and Co-operation for other new Schemes and Projects in the future.

- Also using the most cost effective solutions, and at all times using the Best and Safest Practices within all areas of the Project.

- Having this in mind the following proposals are being put forward concerning the Organisation required to achieve the stated Objective.

- During the early stages of discussion and study work there has evolved a well-fitted Professional Team, which it would be suggested is retained as the basis for Managing through the Project, and all of it's various stages.

4.1 Proposed 'Project Executive Team' (PET)

Client	CKP
Project Managing and Facilitation	BRC
Project Engineering	CRC
Transport & Works Act (inc. Environmental)	RBE
Environmental (EIA and EMS)	BRC
Project Health & Safety	BRC

- The Senior Members will act as 'part-time' Senior Advisors generally, with other full time staff to deal with the day to day activities required, which may, or may not come from the represented Companies.

- Their Fees to be paid for on a time and cost basis monthly.

- Other parties will be utilised as and when required within the Programme to prepare the TWA, and if successful to deliver the Project.

- Where ever possible use will be made of Local Firms and Staff

5 CONCLUSIONS

There is a long way to go, but there is also a considerable amount of good will and support, the response to the recent Bond Issue has been promising, and from initial discussions there are several means available to Fund the Project.

Within the current Economic and Political climate the time seems most opportune to submit this Proposal via the Transport & Works Act for approval by the Secretary of State for Transport.

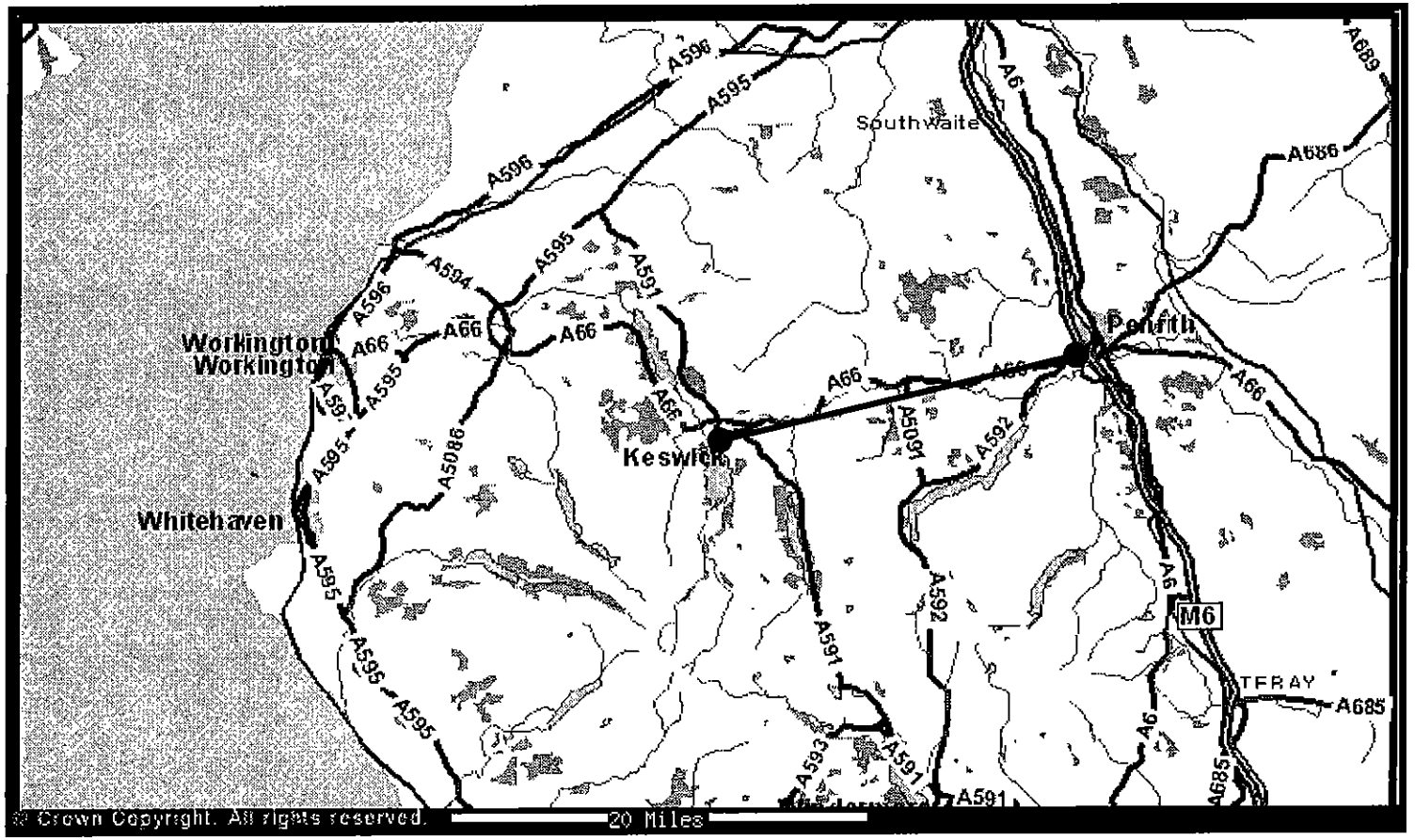
The included recent Professional Studies covering Management, Engineering, Environmental, and Transport & Works Order requirements have shown that, yes there are some obstacles, but none are insurmountable given the will and means.

It is concluded that the Proposed Scheme to re-instate the Keswick to Penrith Railway is possible, practical and given the appropriate support could be viable.
Hence this report is submitted for approval by CKP plc, in an endeavour to Professionally move the scheme forwards ultimately to a satisfactory and successful completion, if at all possible.

K N Robson
Report Co-ordinator
Brown & Root Services

APPENDIX A

Plan of Route



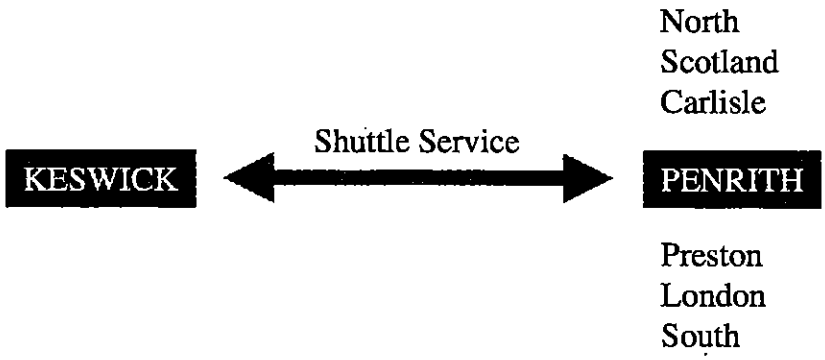
Line of Proposed CKP Railway

APPENDIX B

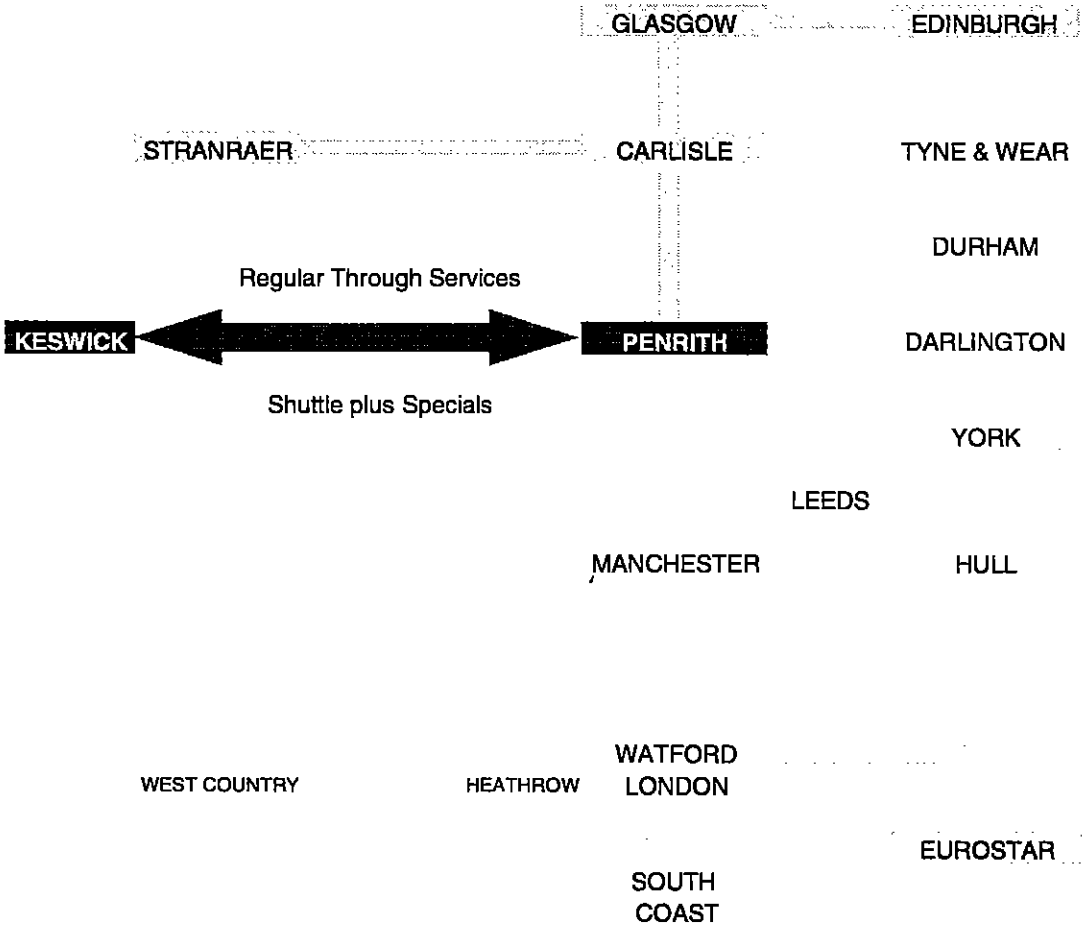
Diagram of Operating Patterns

DIAGRAM TO ILLUSTRATE CHANGES IN OPERATING PATTERNS

Circa 1970



Possibilities with Re-instatement 2003



APPENDIX C

Financial Report

FINANCIAL OVERVIEW JANUARY 2001

Basic Assumptions

The Cashflow for the development, design and construction of the new Railway between Keswick and Penrith has been based on the following:

1. For the initial design and development phase, up to and including the award of a Transport and Works Order, the only sources of finance are from the current Offer of Bonds by the Company, and Grant Aid. Until the Order is awarded it will not be possible to enter into meaningful contracts with commercial contractors.

2. Railtrack and an Engineering Contractor work on a Design, Build, Finance, Operate and Maintain (DBFOM) basis for their parts of the construction once the Order is awarded.

3. Grant aid is to be sought to cover the costs of reinstatement of the sections of line and structures demolished since closure, to the equivalent of an "as closed" alignment (earthworks and structures complete, track lifted, some structural refurbishment required).

4. At this stage there are no other external sources of finance available or promised, although several possibilities have been identified for examination at a later date.

5. Costs are based on comparison with other projects with similar elements and overall confirmation by the County Council's Engineers in late 1996. Price variation on major construction projects in the intervening years has been minor.

6. All services are bought in on a fully professional basis.

7. Costs are for the minimum construction - a single track, "one train" operation, with signalling at Penrith Junction, operated by Railtrack, controlling movements onto and off the line.

8. Additional facilities such as double track, extra signalling and some intermediate stations are possible, but would require 100% funding on top of this basic scheme. Outline approval only would be sought for these facilities unless external finance was available at the outset, leaving development to follow as and when revenue permits.

Grant Aid

Being sought amounts to slightly less than half of the total cost of the re-construction.

Operational Assumptions

The Cashflow projection for the first three years of operation is based on the following assumptions:

1. The train service is operated by a National Network Operator paying an average of the 1995 levels of track access charge levied by Railtrack in the North West of England.

2. The charge is discounted by 20% and 10% in the first two years to acknowledge that passenger numbers will take this time to build to their full potential.

3. The charge is based on an hourly service of "Sprinter" type trains (or more modern equivalents), making approximately 16 return trips per day, seven days a week. This is the service pattern which best suits the residents and businesses in the Keswick area.

4. The Train Operator operates a pattern of services on and to the Keswick line, which allows it to acquire a good percentage of the long distance fares into and out of Keswick.

5. The Engineering Contractor and Railtrack are paid a return of between 8% and 10% per annum on their capital costs by CKP, out of the income from Track Access charges.

6. Land acquisition is a mixture of purchase and lease - the latter may appeal to local authorities including the National Park, and has been found attractive in principle to some private landowners who would not readily agree to sell.

7. CKP would provide staff to fulfil Operations and Customer Care roles at stations on the line, also promote the line in association with local businesses and authorities.

8. Integration with other public transport in the northern Lake District could be achieved by CKP taking a leading role in a number of schemes.

These arrangements create the simplest possible package with minimum scope for disruption due to inability to co-ordinate the actions of disparate bodies.

Other Possible Financial Assistance

The call on grant aid could be reduced if other public bodies financed particular aspects of the construction, for example:

1. If The Highways Agency contributed to the (estimated £2 million) cost of the new bridge over the A66 Trunk road at Beckses. This is necessary because the alignment of the A66 crosses the trackbed at the same level, having been built after closure of the line.

2. If The Highways Agency contributed to the costs of the new alignment at Threlkeld necessitated by the presence of the approach to the road viaduct, built after closure across the former trackbed.

   The Highways Agency's remit currently includes a requirement to make the best use of existing roads - arguably relief of the roads by transferring traffic to rail would help achieve this aim, and therefore justify modest investment by the Highways Agency in the railway. The total cost of identified works on this rail route would probably equate to only a handful of minor road junction improvements, but with greater effect by releasing capacity rather than redistributing problems.

3. If the County Council contributed to the cost of the reconstruction of public road bridges over the line at Troutbeck, Penruddock and Flusco. At these locations, bridges have been demolished to straighten and level the road alignments after closure of the railway. This package would probably amount to approximately £ 2 million less than 10% of the total cost but highly significant as enabling works and demonstrating a real commitment to rail transport.

4. If the County Council contributed to the cost of the new alignment and bridges across the valley at Beckses. The County Council carried out a major landscaping exercise in this area after closure to remove all former railway infrastructure and restore the land to its pre-railway profile.

5. If the Lake District National Park Authority was provided with adequate funding to re-route the foot and cycle path currently occupying the trackbed between Keswick and Threlkeld. Alternatives have been identified in principle. The existing path is not sustainable for the Authority in the long term as costs of maintenance of bridges accrue - against which the path generates no income whatsoever.

The Financial Performance

The line once operational could have its Finances improved by the following measures:

1. If Railtrack funded the costs of recommissioning signalling control equipment and rebuilding the junction at Penrith as an investment on which it took returns purely from access charges generated by extra movements to and from the Keswick line on its own system, without any contribution from CKP.

2. Under-writing the Train Operator's access payments to CKP at the long-term target rate from day one. This could come from a number of possible sources including local authority support. This would allow CKP more scope to negotiate with the Engineering Contractor and ensure a better long-term maintenance regime as well as accelerating the accrual of funds for extra facilities along the line to increase service frequency and flexibility.

As presented, the scheme is viable if fully funded from the outset and construction can be completed within a fairly short timescales.

The line has a good prospect of being self-supporting once established.

Bond Issue

- Launched by CKP Railways plc at the end of October 2000, it has attracted over £100,000 by the end of the year.
- It is anticipated that the total will be in the order of £250,000 to £300,000 by the latest closing date of 28th April 2001.
- The Prospectus states that the Company intends to invest approximately half of the proceeds to fund returns to investors.
- Much of the money has come from individuals and businesses in Keswick who feel very strongly that the rail link is desperately needed.
- The unrestricted funds are shown allocated to spending during 2001 and the first half of 2002.
- This will in effect "keep the project alive" by covering the costs of the key members of the Project Executive Team but very little of the detailed work on the application for the Transport and Works Order.

External Funding

This is essential to ensure that the project makes real progress.

Modest Grant Aid in the early stages will allow significant commercial input to the main construction phase and subsequent operation.

The reverse (commercial funding followed by grants) simply is not feasible.

Tackled this way, the railway can be operational in approximately three years.

If public funding alone was used, the timescales could be many times longer as there would be considerable difficulties creating a suitably coherent package from restricted budgets.

The railway will not be built at all if it relied on commercial funding alone as the returns against the cost, including considerable external finance charges which would be incurred, would not be attractive.

CKP has raised the "pump-priming" finance and it is now a matter of building on this solid foundation.

This approach enables the total risk to be spread over a mix of public and private sources of finance, and the project completed as quickly and cost-effectively as possible.

Cedric Martindale
Managing Director
CKP Railways plc
January 2001

CKP - Early Operation Cashflow Forecast

(All in £,000)

Years: 2004 - 2007

SUMMARY	2004 Q3	2004 Q4	2005 Q1	2005 Q2	2005 Q3	2005 Q4	2006 Q1	2006 Q2	2006 Q3	2006 Q4	2007 Q1	2007 Q2	Totals
Opening Balance	0	4	8	17	26	48	70	87	104	187	270	348	
Total Receipts	378	378	378	378	432	432	432	432	540	540	540	540	5400
Total Disbursements	374	374	369	369	410	410	415	415	457	457	462	462	4974
Total Cash Flow	4	4	9	9	22	22	17	17	83	83	78	78	426
Ending Balance	**4**	**8**	**17**	**26**	**48**	**70**	**87**	**104**	**187**	**270**	**348**	**426**	**426**
RECEIPTS													
Track Access £7 / TrainMile	378	378	378	378									1512
Track Access £8 / TrainMile					432	432	432	432					1728
Long Term Target Figure:													
Track Access £10 / TrainMile									540	540	540	540	2160
Estimated TOC "Keswick" Revenue	*975*	*975*	*975*	*975*	*1555*	*1555*	*1555*	*1555*	*2137*	*2137*	*2137*	*2137*	
Estimated TOC Direct Costs this line.	*783*	*783*	*783*	*783*	*847*	*847*	*847*	*847*	*955*	*955*	*955*	*955*	
DISBURSEMENTS													
Wages/Salaries/Benefits	45	45	45	45	45	45	45	45	45	45	45	45	540
Leased Land Rentals	18	18	18	18	22	22	22	22	27	27	27	27	268
Services/ Administrative	1	1	1	1	1	1	1	1	1	1	1	1	12
Equipment, Bought	1	1	1	1	1	1	1	1	1	1	1	1	12
Equipment/Vehicles, Leased	3	3	3	3	3	3	3	3	3	3	3	3	36
Advertising	3	3	3	3	3	3	3	3	3	3	3	3	36
Engineering Contractor @8%	208	208	208	208									832
Engineering Contractor @9%					234	234	234	234					936
Engineering Contractor@10%									260	260	260	260	1040
Railtrack @ 8%	46	46	46	46									184
Railtrack @ 9%					52	52	52	52					208
Railtrack @ 10%									58	58	58	58	232
Rent/Mortgage for Office(s)	2	2	2	2	2	2	2	2	2	2	2	2	24
Insurance (Indemnity)	20	20	20	20	20	20	20	20	20	20	20	20	240
Telephone	1	1	1	1	1	1	1	1	1	1	1	1	12
Utilities	3	3	3	3	3	3	3	3	3	3	3	3	36
Passenger assistance	3	3	3	3	3	3	3	3	3	3	3	3	36
Taxes	15	15	10	10	15	15	20	20	25	25	30	30	230
Other:	5	5	5	5	5	5	5	5	5	5	5	5	60
Estimated Passenger Numbers (Thousands,averaged over year)	38	38	38	38	56	56	56	56	75	75	75	75	
Estimated TOC "Keswick" Revenue (£k)	*975*	*975*	*975*	*975*	*1555*	*1555*	*1555*	*1555*	*2137*	*2137*	*2137*	*2137*	

First year traffic based on County Council study figures of 68,000 local and 200,000 tourist, averaged for start up. (Similar to Windermere branch currently)

Second year traffic taken as average of estimates for first and third year figures.

Third year taken as "fully developed" as per Tourist Board, Consultants and own study estimates quoted in main text.

N.B. General Visitor Numbers for Keswick show a ratio of 2:1 between Summer and Winter.

Produced by
Iceni Enterprises Ltd
for CKP railways plc
01/01/01

CKP Construction Cashflow Forecast

(All in £,000)

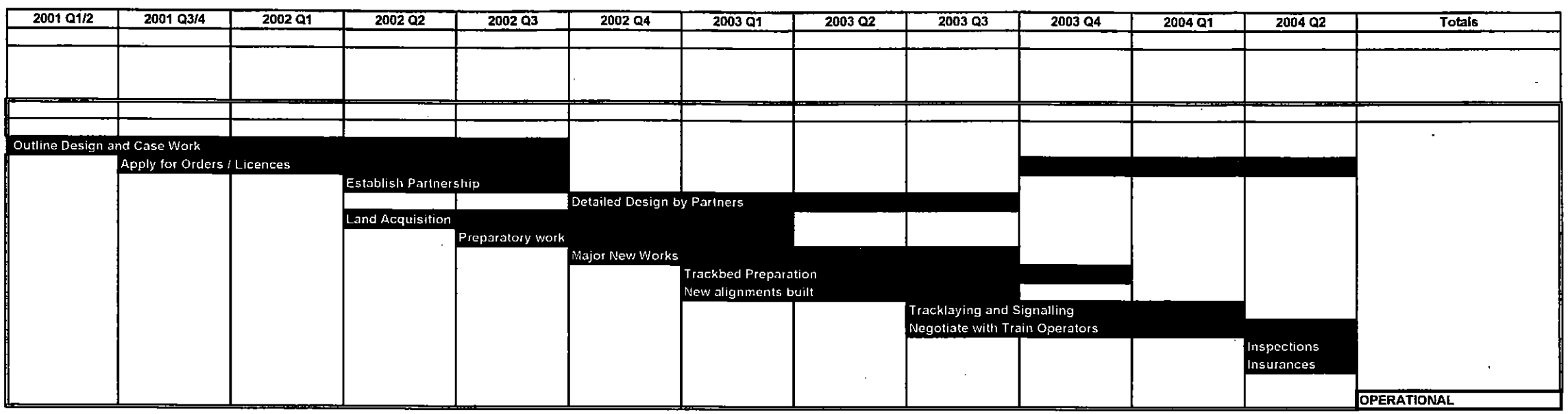
Year: 2001 - 2004

SUMMARY	2001 Q1/2	2001 Q3/4	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2003 Q1	2003 Q2	2003 Q3	2003 Q4	2004 Q1	2004 Q2	Totals	
Opening Balance	0													
Total Receipts	160	210	755	755	1205	1110	3115	4620	5700	3605	3405	430	25070	
Total Disbursements	160	210	755	755	1205	1110	3115	4620	5700	3605	3405	430	25070	
Total Cash Flow														
Ending Balance	0	0	0	0	0	0	0	0	0	0	0	0	0	
RECEIPTS														
Engineering Contractor Input						50	825	1200	3175	2550	2550	50	10400	
Railtrack Investment							100	600	600	500	500		2300	
Bondholder funds	50	50	50										150	
Grant aid sought	110	160	705	755	1205	1060	2190	2820	1925	555	355	380	12220	**Bid for grant**
DISBURSEMENTS														**Cost Allocation**
Outline Design / Spec. Fees	100	100	200	150	100	100	50	50	25	25	25	50	975	Bought in services
Contractor's Design Work							400	600	200				1200	Contractor
Railtrack Design Work							100	100	100				300	Railtrack
Applications / Orders/ Fees	50	100	200	200	100	100	100	100	100	100	100	100	1350	Agencies, Operators
Land Purchase / Lease			250	250	500	500	500						2000	Landowners
Contract Negotiation			100	150	200	100	50	50	50	50	50	50	850	Authorities various
Fencing and Security					100	100	100						300	Bought in
Footpath Replacement work							200	200	200	200			800	National Park
Tunnel Excavation							200	200					400	25% Contractor
Beckses A66 Bridge/ Viaduct							500	1000	500				2000	25% Contractor
Highways Overbridges Build							500	1000	500				2000	County/Highways Ag
Other Bridge repairs/renewal					200	200	200	400	400				1400	25% Contractor
Threlkeld/Penruddock works								200	200				400	25% Contractor
Other Earthwork Repairs							200	200	200				600	Contractor
Keswick Station Access									200	200	200	200	800	25% Contractor
Penrith Junction Construction								500	500	500	500		2000	Railtrack
Trackwork and Ballast									2500	2500	2500		7500	Contractor
Project Management	10	10	5	5	5	5	5	5	5	5	5	5	70	Overheads
Staff Recruitment / Training						5	10	15	20	25	25	25	125	Overheads

Produced by Iceni Enterprises Ltd. for CKP Railways plc, January 2001.

CKP - Sequence of Main Stages

2001 - 2004
Summary



Produced by Iceni Enterprises Ltd. for CKP Railways plc, January 2001.

TRANSPORT & WORKS ACT (TWA) REPORT

1. INTRODUCTION

1.1 CKP Railways plc ("CKP") has been established to reinstate the former railway linking Penrith and Keswick in Cumbria. CKP have assembled various items of background information and raised funds by a bond issue to allow initial promotion of the proposals. Russell Bowler Environmental ("RBE") in association with Brown & Root Services has been requested by CKP to provide preliminary environmental and related advice in respect of the proposals. The tasks identified were to report in outline on:-

(a) Environmental issues needed to be addressed to produce an Environmental Statement to accord with the Transport and Works (Applications and Objections) (England and Wales) Rules 2000, (the "2000 Rules"), but also consistent with a pragmatic approach to environmental issues,

(b) Tasks that are required to prepare a valid Transport and Works Order (TWO) application. This to include an indication of the amount of design needed and, based on information gathered, an opinion as to the likely timescale of the TWO Procedures.

(c) Public consultation related to (a) above,

(d) Likely timescale and budgets needed for (a) and (b) above.

(e) Environmental issues associated with procurement, construction and delivery of the proposals.

A simple bar chart showing the key elements of items (a) through (c) above to be included in the report.

1.2 RBE's understanding of the proposals is based on a brief visit to Cumbria in December 2000, and discussion with Cedric Martindale of CKP and others during the visit. During the visit it became clear that the proposals were not fully developed and other front-end project matters needed to be considered. RBE has prepared this document as an interim draft report for CKP that will be incorporated subsequently within a Brown & Root Services report. The Brown & Root Services will be presented to CKP for use in third party discussions to develop the scheme further by refining the proposals, lobbying local stakeholders and raising additional required funding. Th RBE report sets out in broad terms the environmental and related consent matters that CKP need to pursue to progress the proposals. These have been identified for the purposes of this report under headings of:-

- Proposal identification and rationale - Although a substantial amount of work has been carried out by CKP the specific proposals are not yet clarified. A clear statement of the rationale and supporting business case is essential. This is needed to achieve further funding, and to assist in the application for a TWO.

- Option appraisal - Development of engineering solutions is required where infrastructure replacement/enhancement is needed. The engineering solutions will need to take into account environmental concerns, particularly as much of the scheme is within the Lake District National Park.

- Environmental Impact Assessment (EIA) - The EIA provides an assessment of the impact of the proposals on the environment and describes the mitigation of adverse effects. The result of the EIA is reported in an Environmental Statement (ES)

- Transport and Works Order - A TWO is made by the Secretary of State under provisions in the Transport and Works Act 1992. The powers that can be conferred by a TWO are considerable, and the application is a legal procedure set out in the 2000 Rules.

- Public consultation

- Environmental Management - the environmental impacts of the scheme need to be managed throughout the life cycle of the project, and an Environmental Management System can provide the mechanism for achieving this.

These headings are not mutually exclusive and interaction between the subjects is likely.

Existing Railway Situation

1.3 The former railway linking Keswick and Penrith, which is served by the West Coast Main Line (WCML), was part of the Cockermouth, Keswick and Penrith railway. The railway was abandoned in the early 1970s when the A66 trunk road was developed. Most of the land on which the Keswick/Penrith section was formed has been sold and is in both public and private ownership. The route is characterised by numerous bridges and 2 viaducts (both intact) and passes through the Lake District National Park for approximately half its length to the west. Much of the track formation remains, although many of the bridge decks over roads have been removed leaving just abutments. At the western extremity Keswick Station remains, in part, the former station building having been leased by the local authority to a nearby hotel. Considerable renovation of the leased area is in evidence. The southern platform, shortened from its original length, marks the start of a Railway Path leading to Threlkeld some 4 miles to the east. The path runs essentially along the former track bed apart from a section where the A66(T) crosses the former railway and the valley of the River Greta, north east of Keswick.

1.4 Material, reportedly from the A66(T) works, has been deposited on the track bed and filled the cuttings that led to a short tunnel south west of Briery. A further section of the former railway has been removed, where the A66(T) crosses the River Greta valley south west of Threlkeld.

1.5 The route continues north easterly past the former Threlkeld quarry and partly in cutting across the Keswick Golf Club. A road bridge carrying the A5091 has been removed at Troutbeck, and several bridges near Beckces where the A66(T) again crosses the former railway. Between Troutbeck and the A66(T) the route (borders/crosses) Tarn Moss, a National Nature Reserve. East of the Beckces area the route leaves the Lakeland National Park, loops horseshoe like, in plan, to the north and joins the WCML west of the M6 motorway.

2 PROPOSAL IDENTIFICATION AND RATIONALE

2.1 The vision of CKP Railways is to reinstate the Keswick to Penrith railway, thereby allowing Keswick to be re-connected to the national rail network through passenger train services. The intention is to create an infrastructure so that train operating companies could run diesel multiple units and diesel-hauled locomotive trains. Electrification is not envisaged. Although most of the reinstated railway would be single line, the formation allows for double-tracking east of Threlkeld, to Troutbeck and beyond if the A66(T) crossing were to be appropriately re-constructed. Clearly the train operating companies have an integral role in determining the level of service, but the CKP vision is for a minimum of regular hourly services in each direction for about 19 hours per day.

2.2 The former line served intermediate stations between Keswick and Penrith, and at least one intermediate stop could be a feature of the proposals. As the infrastructure provision and environmental impact are related to the train service, this must be determined. The availability of further funding would be based on a "bankable" proposal. A clear statement of what is to be provided, which will depend on objective views of the return on capital invested and need, is necessary. Further development may be possible when the success of the reinstated line and its operation is able to be judged.(See also comments on Transport and Works powers below)

2.3 The valuable information gathered by CKP over several years now needs to be assembled, together with a firm indication of the train services to be provided and realistic costing of the land acquisition and capital works. The outline business case needs to be developed into a robust financial model so that those who may be willing to provide funds can be satisfied with the foundation of the proposals. Enthusiasm from a promoter and tacit support from sections of the community who may benefit from a successful outcome are important factors, but a clear rationale is essential. (B&R will expand on this in more detail).

2.4 It is quite possible for objectors to the proposals to suggest other ways of utilising a reinstated infrastructure. These suggestions could include such things as a dedicated bus corridor, or narrow-gauge railway provision. A high-level review of the options is recommended. The output from the high level review would help to crystallise views that CKP's vision is the right one, and demonstrate to objectors (and an impartial person such as an Inspector appointed by the Secretary of State) that other options were not viable. The high level review could be included in a first option appraisal workshop (see below).

2.5 Although some of the work involved in developing a fundable proposal can be carried out independently, solutions to the replacement of those parts of the infrastructure that have been removed must be progressed. Capital cost of the proposals and land acquisition must be confirmed.

3 OPTION APPRAISAL

3.1 There is no set procedure for option appraisal, but the process most likely to deliver an acceptable solution is an iterative one probably requiring several workshops. Informed environmental and cost information are key requirements in such a workshop process. The intensity of the work at each of the principal areas noted below will vary, but the principle is the same:-

- An initial workshop for the determination of a methodology. No methodology is going to be wholly objective, although there have been a number of attempts to devise systems that give an impression of objectivity. Simplicity and good record keeping as to how decisions were reached are more important. One way, which has been used on recent railway proposals, is by development of a trade-off matrix. Decision factors such as cost, functionality, safety, and environmental issues (acceptability to National Park could be subsumed within environmental issues, but may be sufficiently important to feature as a specific decision factor) are prepared for each identified and viable option. Weighting is then given to the factors. The weighting must be reasonable so that it can, if necessary, be defended and withstand scrutiny of an impartial observer. (The environmental issues associated with each option are themselves likely to require a similar approach to the trade-off matrix outlined so that, for example, ecology can be compared to say, noise). To focus matters there are specialist consultants who can provide help in achieving an outcome in a reasonable timescale.

- A workshop to identify possible solutions. This could also deal with the high-level matters. This workshop needs information in a broad sense so that, hopefully, some options can be rejected.

- More detailed work on costing, environmental issues and possibly other factors would then inform further workshop(s), which would identify the preferred option.

3.2 The preferred option may not of course be acceptable to all objectors but, provided no objector is seen to have raised a point fatal to the proposals, the process should allow the preferred option to be defended robustly. As the Lake District National Park Authority (LDNP) is likely to wield considerable influence, the risk of a fatal objection from this source needs to be minimised during the option appraisal procedure through ongoing consultation and involvement.

3.3 The preferred solutions from the option appraisal would have to be those that formed part of a fundable proposal.

3.4 The most substantial element of the infrastructure replacement relates to the crossing of the A66(T) and 3 minor roads near Beckces. All this work is within the Lake District National Park, so the solution must be sensitive to the Park's requirements and strategic objectives.

3.5 A second element of replacement relates to the Keswick to Threlkeld section where proposals at the station will impact on the Keswick Country House Hotel, the leisure centre, and the Railway Path. Further east the Railway Path encompasses a newly provided section (the Boardwalk) over the River Greta gorge. Proposals in this area will, in addition to the National Park's role, need to recognise third-party involvement.

3.6 The third area, where options are possible is the replacement of the A5091 crossing near Troutbeck. Local sensitivities and safety standards relating to highway design are the key issues.

3.7 Fourthly, the replacement of the track where the A66(T) crosses south west of Threlkeld has several options. This is the area of less concern relative to other areas.

3.8 In addition to providing a cost effective solution that is acceptable to the National Park and third parties (assumed to be acting reasonably), the ES will need to contain an outline account of any alternatives considered and main reasons for choice, taking into account environmental effects.

4 ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

4.1 The requirement for EIA in the United Kingdom derives from European Directive 85/337, amended by 97/11. The purpose of the Directive is to ensure that environmental effects of projects are taken into account by decision takers and are seen to have been taken into account. As the UK has a system of development control provided by Town & Country Planning legislation and most projects require planning permission, the Directives are implemented principally by Regulations made under Town & Country Planning provisions. For those projects requiring powers conferred by a Transport & Works Order and involving works, the 2000 Rules implement the Directive.

4.2 The Directive, as amended, lists (in Annex 1) projects for which EIA is mandatory. In the case of railways this is "construction of lines for long-distance railway traffic...". There are other (Annex 2) projects, where EIA is not mandatory. These include "manufacture of railway equipment" and "construction of railways". The latter category is that of most relevance to CKP. The category was introduced as one of the amendments contained in 97/11 and there is no guidance or case history as to what might be covered by the words.

4.3 CKP are understood to have decided to submit an ES, so the provision at Rule 7 of the 2000 Rules relating to a screening decision (i.e. whether an ES is required) is academic. A screening decision can be obtained where there is perceived doubt whether the proposals should be subject to EIA. Given the nature of the proposals, and the sensitive location largely within the National Park, there is little doubt that the Secretary of State would confirm that an ES was needed. The work required to apply for a screening decision would in any case be similar to carrying out the EIA.

4.4 The next matter relates to the content of the ES. Good practice in EIA work has, from the outset of the process in the early 1970s, involved "scoping". Put simply it is unreasonable and unnecessary for every possible impact to be considered to the same degree, and attention is focused on the key issues, with others "scoped out". Again as a result of the 97/11 amendments, a scoping opinion may be obtained from the Secretary of State. This route is of course open to CKP but, with professional environmental advice and the expected co-operation from bodies such as the Lake District National Park, should not be needed. A scoping opinion takes a maximum of 42 days, after all information has been provided to the Secretary of State. In practice this could be quite a long time. There is also a provision that where a scoping opinion has been obtained, the ES "need only include the information specified in that scoping opinion". However, Rule 8(8) provides that even where a scoping opinion has been given, further information in connection with the environmental information provided can still be required.

4.5 The prescribed content of the ES is set out in Rule 11 and must include:-

(a) a description of the project including the site, design and size of the proposals.
(b) a description of the measures proposed to mitigate adverse environmental effects.
(c) data required to identify and assess the main effects likely on the environment.
(d) an outline of the main alternatives studied and reasons for choice.
(e) A non-technical summary.

In addition there is a requirement to include such other information contained in Schedule 1 of the 2000 Rules as is relevant to the proposals.

4.6 Based on the site visit and experience of other railway projects the environmental topics likely to require addressing in the EIA are (not in order of importance):-

(i) Visual and landscape impact, particularly where new infrastructure is to be provided.
(ii) Operational noise impacts, particularly where sensitive receptors are identified.
(iii) Operational vibration impacts.
(iv) Ecology and nature conservation, particularly where designated sites and species may exist.
(v) Archaeological impacts
(vi) Agricultural impacts
(vii) Community and Socio-economic impacts, which would include matters like re-provisioning of Railway Paths, diversion of other footpaths, employment, etc.
(viii) Traffic impacts, which would include the effect of passengers at Keswick and Penrith (and intermediate stops)
(ix) Construction issues, covering traffic noise, vibration, disruption and the like.
(x) Water resources (see below), waste, land contamination may also need to be addressed, but are not expected to be key issues and may be scoped out.

4.7 The procedure would be to prepare a brief scoping report, setting out the intended methodology and addressing the technical, spatial and temporal scope. (The technical scope is likely to be a listed in the previous paragraph.) The purpose of the scoping report is to try to get agreement to both from the local and other statutory authorities, at least at officer level.

4.8 In order to inform the option appraisal process (referred to above), some environmental information will have been gathered. The bulk of the activities would, however, be carried out once the preferred options had been ascertained and a fundable project identified. In view of the need to include specific information in the ES, the engineering design has to be progressed to a point where meaningful assessment of the impact can be made. An engineering "design freeze" is not essential, but may be desirable for cost control purposes. What is essential is that a design that represents at least the fundable project is available. A consent design is not a formal requirement but is a useful concept that may be envisaged as an "envelope" into which the final detailed design would fit. The final detailed design should not give rise to new or different environmental impacts, nor be materially different in any matter that is a land use planning consideration, e.g. appearance.

4.9 The consent design may include features that are intended to be constructed as a second phase. Such features may not be included in the fundable proposals, but will need to be addressed in the EIA if consent is being sought for them so some work on their design is necessary. (See also comments below under TWO).

4.10 The matter of operational railway noise needs a comment. As considerable time has elapsed since trains used the route, the impact of train noise may be considerable , particularly in the Keswick area, where residential properties flank the route, and other areas such as Threlkeld. Noise mitigation may be required, which would usually be achieved by acoustic barriers of both reflective and absorptive type. Additional land may be needed for acoustic barriers, so requirement for mitigation must be determined

once the service pattern is available. Barriers are also likely to have a visual impact, which must be assessed.

4.11 A related issue is the application of the Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1996 (NIRR). These are legal requirements to provide acoustic insulation (e.g. double-glazing) to eligible properties within 300m either side of the railway. The requirement for insulation depends on trigger points set out in the regulations being reached. Even with noise barriers some properties may still be eligible for insulation. A NIRR assessment is not an essential component of an EIA. CKP would, however, wish to know what expenditure might be incurred under NIRR. The 1996 Regulations require comparison of noise levels, calculated in accordance with the "Calculation of Railway Noise", immediately prior to construction and when the railway is operating as expected; this could be 15 years after completion to make railways comparable with trunk roads and motorways.

4.12 Also of importance is the likely need to protect some areas from liquid discharges including rainfall runoff that may have become polluted with oil or silt laden. The fundable proposals will probably need to include for oil interceptors or basic treatment such as reed beds in some sensitive areas like the Tarn Moss National Nature Reserve. Sufficient land to allow such protective measures will need to be identified.

5 TRANSPORT AND WORKS ORDER

5.1 The Transport and Works Act 1992 came partially into force on 1 January 1993. It provides, inter alia, a ministerial order-making system to replace approval by Parliament for railway projects through Private Bills. The matters that may be included in an Order are contained in Schedule 1 to the 1992 Act. Application procedures are largely prescriptive and requirements contained in the 2000 Rules that came into force on 16 October 2000. The actual application is in written form, but there is no "application form" as such. In a sense the application is a culmination of many preliminary activities, which have to be properly carried out and completed to allow a valid application to be made. Time spent in getting the preliminary activities right is time well spent.

5.2 Preliminary notices of an intention to make an application must be served at least 28 days prior to the making of the application. The notices are served on local authorities, the Environment Agency, Secretary of State, and other authorities set out in Schedule 2 of the 2000 Rules. (The requirement prior to the 2000 Rules coming into force to obtain a statement of views from local planning authorities, (the Rule 3(I) provision), is no longer needed.)

5.3 The documents that must accompany the application are listed in Rule 10(2). Some of the documents are obvious; others merit some commentary. Items 10(2)(a), a draft of the proposed order, and 10(2)(b), a concise memorandum explaining the power sought would normally be prepared by specialist lawyers. Item 10(2)(e) requires consideration of the consent design to identify matters such as consent to discharge to controlled waters. Information in respect of a railway infrastructure licence might also be relevant. Express provisions are made for planning permission (see below), listed building consent, & hazardous substances consent (unlikely to be needed by CKP). In the case of a listed building consent the application is likely to be made to the relevant authority and then referred to the Secretary of State.

5.4 As works will be carried out Rule 10(3)(a) means that order plans and sections, as specified by Rule 12, must accompany the application. The accepted form of such plans and sections follows that used for railway parliamentary procedures. The important factors to be shown on these plans are not the engineering, but the land usage. Every land parcel to be acquired or used needs to be clearly shown on a National Grid base. As CKP are understood to intend to use Ordnance Survey digital mapping, the reference to National Grid and Ordnance Datum would follow. Some variation in the proposals is anticipated by the provision of limits of deviation that have to be shown on the Order plans. However, justification for them must be given, and very wide limits of deviation are not likely to be accepted. Hence the consent design must be reasonably developed.

5.5 An estimate of approximate capital costs must be included in the application in the prescribed form. The items are straightforward, but require the fundable proposals to be established as noted above. Of more import, possibly, is the requirement to set out the funding proposals both for the implementation of the Order and particularly the acquisition of the "blighted land" i.e. land intended to be acquired compulsorily. This could amount to most of the land needed by CKP unless private treaty arrangements possibly by way of options to purchase can be effected. Further advice from specialist surveyors should be obtained but, in general, implementing compulsory purchase is something of a last resort. The fact that such powers would be sought by CKP, and reasonably could be available can be a strong negotiating point for CKP in seeking

private treaty arrangements. It must be borne in mind, however, that compulsory purchase powers are not likely to be confirmed if there is a reasonable alternative available. It is therefore important that the option appraisal process outlined above is properly conducted and recorded.

5.6 The application must include a plan, showing the land to be acquired compulsorily, together with extinguishments of rights and easements, land owned by CKP, and other interests. Linked to the land plan, which can usually be incorporated with the Order plans referred to above, is a book of reference. The book of reference has a prescriptive list of information that must be entered. Preparation of Order/land plans can be time consuming, since despite digital mapping and registered title, the actual features on the ground need to be surveyed and rationalised. Specialist firms are recommended to carry out the work involved.

5.7 The making of an Order does not avoid the need to obtain planning permission. There are two routes. The applicant either makes planning application(s) to the relevant local authorities in outline or for full permission. Having received planning permission the Order application is then made with reference to the granted permission/refusal. The alternative, and probably more usual route, is for the applicant to seek a direction from the Secretary of State that planning permission is deemed to be granted. Again this can be as a full planning permission or outline. The outline planning permission route is available for the erection of a building (which by definition includes a structure) establishing the principle of a development, but leaving certain so-called reserved matters for later agreement of the planning authority. The reserved matters relate to the siting of the building, its design, its appearance, means of access and landscaping of the site. If the application seeks deemed planning permission by a direction, the applicant must also propose planning conditions (which ideally should be agreed in draft with the relevant planning authority), and any reserved matters identified. In the case of CKP, unless there are strong reasons identified to the contrary, most of the fundable project should obtain full planning permission by the Secretary of State's direction. This avoids potential delay in approving key elements of the proposals after the making of the Order, which may cause funding problems. There may well be secondary matters, however, such as agreeing a noise-monitoring programme during construction, which can be left for subsequent agreement with the local authority (assumed to act reasonably).

5.8 Where further works are contemplated in the consent design, but are not part of the funded proposals, per se, an outline planning permission may be appropriate. However, consideration should be given to pursuing a stand-alone planning permission for such items. As noted above in respect of compulsory purchase, if the further works are to be constructed on land to be acquired compulsorily or are dependent on extinguishment of third-party rights, such matters may not be confirmed or may be disputed if there is some doubt about funding the blighted land. Further legal advice should be obtained on this point. A situation could be envisaged, however, where a construction compound may be acquired compulsorily and then considered as a potential site for the further works.

5.9 A further point to bear in mind in TWO applications is the provision for the Secretary of State to opine that a proposal is a Scheme of National Significance (section 9 of the 1992 Act). This is unlikely to be the case for CKP's proposals but cannot be ascertained until after an application is made. Schemes of National Significance are debated in Parliament and the principle of the proposal established or rejected.

Although requiring extra time, possibly up to 12 months, objections can then only be made about points of detail.

5.10 A number of objections are likely given the scale of the proposals envisaged by CKP, the location within the Lake District National Park, and the need to acquire considerable land and rights. The 2000 Rules allow for objections to be made and set out the procedures to be followed. The post-application publicity and procedures for dealing with objectors is not within the scope of this report, but an indication of the likely timescale should a public inquiry be held is given in the bar chart. Written representations or a hearing, both of which are likely to be less time consuming than a public inquiry, may also deal with objections. It is not possible to be sure about such things at this stage, but it would be prudent to assume that an inquiry would be needed.

6 PUBLIC CONSULTATION

6.1 Public consultation is good practice in EIA work. It enables those most affected to appreciate the proposals and the promoter to amend elements to make for greater acceptability. Public consultation by way of an exhibition (public meetings should be avoided) with appropriate specialists on hand to field questions, should be undertaken when the consent design is available, but before the application is made. The alternatives considered at the option appraisal should also be displayed with the reasons for their rejection. Probably two venues would suffice. A record of the attendees should be kept and the opportunity for completion of questionnaire/comment forms given. The ES should include reference to all consultations and contacts made and, if appropriate, a summary of responses.

6.2 There is another consultation, which is more formal and part of the TWO application procedures. These statutory consultees are set out in Schedules 5 and 6 of the 2000 Rules. In practice these bodies (e.g. Environment Agency) will normally have been contacted during the EIA preparation, and their views, hopefully accommodated. Objection from a statutory objector will usually lead to a public inquiry.

7 ENVIRONMENTAL MANAGEMENT SYSTEMS (EMS)

7.1 An EMS is becoming of increasing importance for both the operations of proposals such as those by CKP and their construction. Further information will be provided in the Brown & Root Services report, but essentially the setting up of formal procedures to control all environmental aspects of an organisation's activities leads to benefits of reduced impacts and, often, savings through waste minimisation. Construction impacts are a mandatory requirement of EIA. If CKPs' contractors are required to develop an EMS, which would include plans for dealing with for example, noise emissions, traffic movements and parking, and discharges from the works, the ES can refer to these in a favourable way and reduce the scope of describing mitigation measures.

8 BUDGETS AND TIMESCALES

8.1 The attached bar chart shows the key elements of the topics referred to in this report, and the expected timing and duration. On the basis of the information set out in this report, indicative budgets are given in Table 1.

Table 1 Indicative Budgets

Note – the figures below are provided only for information purposes to assist CKP in checking budgets. Whereas provided in good faith they do not constitute an offer to carry out the tasks at the costs indicated.

Project Identification			**£2,000**
Option Appraisal			
Methodology		1500	
Info gathering	Ecology	4500	
	Archaeology	1000	
	Visual	1000	
	Agriculture	600	
	Community	1400	
	Noise sensitive areas	1000	
	Land/property	3000	
Workshop attendance		6000	
Expenses		2500	**£22,500**
EIA	Scoping	5000	
	Landscape/visual	5500	
	Noise & vib. surveys	8500	
	Noise analysis	5500	
	Vibration analysis	3000	
	Archaeology	1250	
	Agriculture	1250	
	Community	5500	
	Traffic survey	8500	
	Traffic analysis	4000	
	Construction	3000	
	Other	5500	
	Contingencies	5000	**£61,500**
	Coordination and drafting	12000	
	Attendance & revisions	3000	
	Graphics printing & drawings	15000	
	Contingencies	3000	**£33,000**
TWO application	Legal & drafting	50000	
	Land ref	30000	
	Order plans	15000	
	Planning drawings	15000	
	Other inputs	20000	
	Printing	25000	
	Contingencies	15000	**£170,000**
Exhibition	Attendance	5000	
	display	5000	
	Contingencies	1000	**£11,000**
		TOTAL	**£300,000**

APPENDIX E

Engineering Report

ENGINEERING REPORT

1 INTRODUCTION

The railway between Keswick and Penrith was closed by British Rail in 1972 and the majority of the trackbed is intact and free of obstructions. This report describes the extent of the works necessary to reopen the railway and the programme for development of the outline proposals up to submission of the Transport and Works Act Order application. The following notes are based upon information provided by CKP Railways plc and other options may be developed as schemework progresses.

2 EXISTING STRUCTURES

Approximately sixty-five structures are required to carry the railway over, or under significant obstacles. Of these, 39 are still intact and can be repaired/strengthened to carry the new railway and 26 have been totally/partially demolished and will require reconstruction, or abandonment.

There are 2 tunnels, one of which "Big Tunnel" has been infilled, but is structurally intact. Removal of the fill material will be a major construction activity and access/haul routes will have to be identified. The extent of repairs to the tunnel lining will be determined by inspection following removal of the fill.

3 MAJOR NEW WORKS

3.1 Threlkeld

At Threlkeld, the A66 road has been built across the original alignment and a bridge under an adjacent minor road removed/infilled. Two options are available:

- Construction of new bridges through the A66 embankment and beneath the minor road, permitting reuse of the original alignment.
- Adoption of a new alignment with tight reverse curves deviating from the original to pass through the easternmost side span of an existing bridge carrying the A66 over the River Greta and a new bridge under the minor road.

3.2 Troutbeck

The original bridge carrying the A5091 road over the railway has been demolished and the road realigned. Reconstruction of the bridge and road to the former alignment may not be acceptable to the Highway Authority. An alternative option to lower the level of the railway appears feasible and would enable reconstruction of the bridge with the road maintained on its present alignment.

3.3 Beckces-Penruddock

To the west of Beckces, the new line will have to rise above the original level on a new embankment and bridge spanning the A66 trunk road. The bridge span may be reduced if agreement is given to relocation of an existing lay-by.

East of the A66, an infilled cutting will be partially excavated to the raised formation level. Then three bridges are required at Beckces to carry the railway over the B5288 at three separate locations. From the west, the line between the first two crossings could be carried on embankment, or additional spans to form a viaduct. Between crossings two and three is another infilled cutting to be partially excavated.

East from the third Beckces bridge, the line will continue on a new embankment to the south of the original line and the Penruddock station site (now occupied by housing), before rejoining the original alignment just west of the existing masonry Penruddock Viaduct.

4 PERMANENT WAY

The new alignment is to be based on a line speed of 75mph, with the possibility of 90mph investigated on certain sections.

The line will be single bi-directional throughout, but provision will be made for the future doubling of some sections to increase the line capacity.

A new junction will be required with Railtrack's West Coast Main Line to the south of the M6 bridge to gain access to Penrith Station via the Down Loop. This would involve installation of a new turnout from the Down Loop and resignalling the Loop to provide bi-directional working between Penrith Station and the new Keswick Junction.

The majority of the route will consist of conventional ballasted track with continuously welded rails. Longitudinal timber waybeams will be used on a number of the existing metallic underbridges to avoid increasing the dead loads and construction depth.

The existing track drainage system will be retained and upgraded where necessary. New outfalls will have to be located and agreed for the proposed deviations from the original alignment.

5 STRUCTURAL CLEARANCES

5.1 New Construction

New structures will be designed to comply with the requirements of the HM Railway Inspectorate (HMRI) Railway Safety Principles and Guidance publications.

5.2 Existing Structures

Where possible, the clearances to existing structures will be improved to the same standard as new construction. Where not possible, access restrictions and other control measures will be identified and agreed with the HMRI to ensure the railway can be operated and maintained safely.

6 STATIONS

6.1 General

The proposed stations will be designed in accordance with the HMRI and Office of the Rail Regulator (ORR) requirements and will provide full disabled access. The architectural style of the new buildings will compliment their locations and will have to be agreed with the local planning authority.

6.2 Keswick

The original station still exists as part of a hotel complex and it is proposed to bring the existing platform back into use as a terminal platform plus a new second terminal platform. Taxi and bus interchange facilities will be provided.

6.3 Intermediate Stations

Intermediate stations are proposed at Threlkeld and Penruddock and will comprise single platforms with simple waiting shelters. The feasibility of other intermediate stations will also be considered.

6.4 Penrith

It is proposed to use the existing station at Penrith.

7 DESIGN

Corus Rail Consultancy's (CRC) brief is to produce plans and sections of the route, together with a review of available information and a report on the feasibility of the various engineering options. This will form the technical input to the Transport and Works Act Order (TWO) submission.

A small project team will be established supplemented as necessary by specialists in geotechnical, permanent way, bridge, station and signalling design from within CRC.

Ordnance Survey data will be used to produce the plans, with detailed surveys at specific sites where major works are required. Drawings will be produced to define the alignment and identify the land required to build and maintain the railway.

Details of existing statutory undertakers services will be requested and major services diversions identified.

Existing drawings are available for a number of the former railway structures and the A66 road structures. These together with the topographical information, published/existing geotechnical records and site observations will be used to determine the structural options at each site.

A report will be produced detailing the options considered and summarising the available information.

The following table shows the proposed programme and estimated spread of expenditure up to completion of the TWO submission. The dates are not rigid and will probably vary to suit the requirements of the other Project Executive Team members.

January, 2001	£6,000 obtain OS data and record information
February	£6,000 desk study
March	£10,000 walkthrough/geotechnical desk study
April	£15,000 surveys local to major structures
May	£10,000 scheme development
June	£10,000 reports and TWO draft drawings
July	£8,000 schemework for consultation purposes
August	£4,000 ongoing development
September	£4,000 ongoing development
October	£4,000 ongoing development
November	£4,000 ongoing development
December	£3,000 ongoing development
TOTAL	£84,000

CONCLUSION

Reconstruction of the railway is feasible from a technical viewpoint. The choice of options to progress for each individual item of work will be determined jointly by the Project Executive Team, who will add environmental and financial considerations to the technical proposals.

APPENDIX F

Environmental Management System

ENVIRONMENTAL MANAGEMENT

Introduction

CKP Railways have identified a requirement for environmental support in developing the proposed Keswick to Penrith scheme. As the proposed site is in part situated within the Lake District National Park, there will clearly be concerns from a variety of stakeholders at both regional and local levels that environmental issues will be well managed throughout the project life cycle.

This section describes the proposed approach for managing environmental issues during procurement, construction and delivery phases. Although these activities are presented as being distinct from the 'front-end' environmental/planning activities, in practice there will be overlaps and synergies between these phases.

Relationship to Environmental Statement

The development of a new rail construction project will initially require specialist environmental support in order to gain planning permission, particularly where, as in the case of this project, there is a need for an Environmental Statement to be prepared to report the findings of the Environmental Impact Assessment. Although the ES will describe environmental effects associated with material changes and operational impacts arising from the development there is also a requirement to identify environmental impacts during the construction phase and how these will be mitigated.

The ES will therefore describe what the environmental effects will be during construction and delivery, and propose how these issues will be managed. The construction phase by its very nature typically represents the stage whereupon the most significant environmental risks associated with a project are likely to arise, thus requiring provision for effective control of activities to ensure that :-

- Applicable environmental legislation has been identified and is being complied with so as to avoid litigation resulting in fines and/or compensation payments
- Pollution to land, air or water resulting from worksite operations is minimised
- Nuisances (such as noise, dust, and light) to neighbouring residences are avoided
- Wastes are minimised to avoid inefficiency and save cost
- Measures are taken to ensure that any sensitive areas (such as watercourses), habitats and/or species are adequately protected from worksite activities

Environmental Management Systems

A well-recognised, cost effective method for achieving effective environmental management for an organisation is to develop an Environmental Management System (EMS). An EMS, put simply, represents a set of plans and procedures that aim to manage environmental issues within an organisation, and can range from an informal in-house system to one based on a formal standard.

The globally used BS EN ISO 14001 represents the most popular industry standard model, which follows a series of standard structured steps to deliver the key objective of continual environmental improvement. Many organisations achieve conformance to the standard to gain certification in order to be able to publicly promote their companies' standard of environmental

performance, although by following the ISO 14001 model this allows many organisations to manage environmental issues sufficiently without requiring certification.

The key elements of ISO 14001 in the context of this project are: -

- **Environmental Policy** – this represents the key document supported by the senior management, which set out organisation's key vision for environmental management
- **Environmental Aspects** – in order to provide the scope for the EMS it is important to decide what is important, and ISO 14001 requires a procedure to be in place to identify the environmental aspects which have a significant impact on the environment, and which should be managed or controlled. Key areas may include for example: -

  - Waste management in relation to the volumes of spoil produced during trackbed excavations
  - Noise caused during construction works resulting in nuisances caused to residences adjoining the track
  - Traffic impacts in relation to increased HGV/construction traffic, road closures and construction accesses
  - Potential contaminated land liabilities arising during excavations giving rise to potential of pollution of local watercourses
  - Impacts to sensitive site ecology during construction (e.g. badgers, Tarn Moss NNR)
  - Potential for Pollution Incidents – such as fuel spillages from construction plant
  - Air emissions from construction traffic (CO_2, particulates, etc)
  - Sustainability of materials to be procured

- **Legislation Register** – in order to monitor environmental legislation compliance a register of applicable legislation can be developed to record what legislation is applicable and the control measures in place
- **Objectives and Targets and Environmental management and improvement programme** – a list of specific actions, deadlines and responsibilities to mange/control environmental issues
- **Organisation structure and responsibilities** – responsibilities for environmental management within the organisation. Typically, as with health and safety management, the senior manager is ultimately responsible for managing environmental issues, however these are usually delegated to an environmental manager or equivalent.
- **Operational control, Monitoring and measurement and audit** – as works will be undertaken by sub-contractors the key role of an environmental manager will be to monitor their activities to ensure that all procedures/method statements are being adopted and are being appropriately followed.
- **EMS Audit and Review** – a periodic review of the application of the EMS to identify opportunities for improvement

Project Environmental Management Plan

The Project Environmental Plan represents an effective way to present the relevant information relating to environmental management on a project. A project environmental plan should include: -

- A brief description of the scheme
- Identify any environmental constraints relating to the site (e.g. protected areas (SSSIs/NNRs etc, sensitive areas such as watercourses) within a constraints map. This may include any conditions of planning consent that must be adopted, such as working hours or protected species translocation.

- A description of the core elements of the EMS
- A clear outline of the environmental arrangements/procedures to be followed by staff/sub-contractors on site.

It is recommended that a plan is developed along these guidelines. This activity can and should be commenced during the planning phase of the project.

EMS Development and Resource

The EMS will provide the structure for managing environmental issues throughout the life cycle of the project. It is advisable to begin to develop the EMS during the planning phases so it is in a usable state when construction activities begin. This would also allow for a level of valuable continuity and synergy between the EIA activities and the EMS activities.

In order to develop an effective EMS there would be a requirement for an environmental manager/advisor resource, probably on a part-time basis. Once the EMS has been developed the level of input from an environmental manager would be reduced during the operational phase

Planning and Design – EMS development, develop Environmental Plan and procedures and interface with Environmental Statement.

Procurement – During this phase the EMS would provide the mechanism for integrating environmental issues into procurement at two levels: -

- Using sub-contractors to carry out the construction work who have the appropriate approach, competencies and systems in place to manage worksite environmental issues.
- Procuring materials within the design that have a greater sustainability performance (such as steel for the track, using sleepers from FSC certified sustainable forests, etc).

Construction - During construction activities would focus primarily on managing sub-contractors at worksites by communicating project requirements by providing site inductions and monitoring through inspections and audits that procedures are being adopted. With good planning and contractor liaison a typical objective may be to re-use much of the waste spoil from one site for re-use in land formation at others, thus reducing the costs associated with landfill disposal. At this stage there would be a good opportunity to integrate closely with health and safety staff to provide a co-ordinated approach to worksite management.

Delivery and Operation - The EMS could be used within the operational phase whereupon the impacts of the running line can be addressed. Maintenance activities may for example be carried out to avoid nuisance (for example through ongoing noise surveys and maintaining track), to manage wastes and emissions from trains and stations, and ensure planning conditions are being upheld (e.g. there may be planning conditions relating to drainage at Tarn Moss NNR requiring monitoring and maintenance).

Conclusion

It is proposed that the project would be well advised to develop an EMS to the ISO 14001 model to provide a structured way to manage environmental issues. It is anticipated that this would not only ensure legislative compliance and minimise environmental risks but would also provide the opportunity for saving money through waste minimisation and provide evidence to stakeholders that environmental issues have been taken seriously during the development of the scheme from the outset.

APPENDIX G

List of Outstanding Issues

LIST OF OUTSTANDING ACTIONS

Item No	Phase & Activity	Due Date	CKP MD	B&R PM/F Envir H&S	RBE TWO	CRC Eng	DocRef
1	**Project Start-Up**						
1.1	Assess T&WA/Environmental Requirements	Dec-00	■	■	■		AppxD
1.2	Independent Financial assessment	Jan-01	■	■			AppxC
1.3	**Produce Project Professional Report**	**Feb-01**		■			Report
1.4	Establish Project Team inc. contracts	Feb-01	■	■	■	■	Summary
1.5	Project Feasibility & Rationale	Feb-01	■	■	■	■	AppxD Sect2
1.6	Define Proposal	Feb-01	■	■		■	AppxD Sect2
2	**Project Funding**						
2.1	Establish possible areas of Funds	Feb-Mar01	■	■			
2.2	Develop Marketing Policy	Feb-01	■	■			
2.3	Approach TOC's	Mar-01	■	■			
2.4	Approach suitable backers	Mar-Apr01	■	■			
2.5	Public Promotion & Consultation	Apr-01	■	■			
3	**Option Appraisal**						
3.1	Identify Engineering Options	Mar-01	■			■	AppxDSect3
3.2	Quantify Options	Mar-01	■			■	AppxDSect3
3.3	**Appraisal Workshop**	**Apr-01**	■	■	■	■	AppxDSect3
3.4	Identify Preferred Engineering Solutions	Apr-01	■	■	■	■	AppxDSect3
4	**Engineering Design**						
4.1	Develop Designs	Mar-01				■	
4.2	Progress Preferred Designs	Apr-01				■	
4.3	**Approve Final Designs**	**Jul-01**	■	■	■	■	
4.4	Design Freeze	Jul-01				■	
5	**Environmental Impact Assessment**						
5.1	Specialist Surveys	Apr-Aug01		■			AppxDSect4
5.2	Consultation with Authorities	Apr-Aug01	■	■			AppxDSect4
5.3	Identify effects & mitigation measures required	Apr-Aug01		■			AppxDSect4
5.4	Draft EIA Statement	Jul-Aug01		■			AppxDSect4
5.5	Up date Technical Summary	Jul-Aug01		■			AppxDSect4
5.6	**Final Statement agreed**	**Oct-01**	■	■	■	■	AppxDSect4

Item No	Phase & Activity	Due Date	CKP MD	B&R PM/F Envir H&S	RBE TWO	CRC Eng	DocRef
6	**Consultation**						
6.1	Consultation with Railtrack/SRA/TOC's	Feb01-Jan04	■				
6.2	Consultation with HMRI/HSE	Jun01-Jun02	■				
6.3	Submit Safety Case	Jun-02		■			
6.4	Safety Case Approval **(External)**	Jan-03					
6.5	PR of Proposals	Jun01-Sep01		■	■		AppxD Sect6
6.6	Prepare Consultation Material	Aug01-Sep01		■	■		AppxD Sect6
6.7	Public Exhibitions	**Sep-01**	■	■	■	■	AppxD Sect6
6.8	Respond to Objections	Oct01-Apr02	■		■		
6.9	Review Public Feedback	**Oct-01**	■	■			
7	**Transport Works Order Application**						
7.1	Prepare TWO Application	Apr01-Nov01		■	■		AppxD Sect5
7.2	Land Referencing	Apr01-Jul01		■	■		AppxD Sect5
7.3	Approval by CKP	**Oct-01**	■	■	■	■	AppxD Sect5
7.4	Rule 5 Notices	Oct-01					AppxD Sect5
7.5	Publication	Nov-01		■	■		AppxD Sect5
7.6	Application to S of S	Dec-01					AppxD Sect5
7.7	TWO Determination **(External)**	Nov01-Nov02					AppxD Sect5
7.8	Public Enquiry	May-02		■	■	■	AppxD Sect5
7.9	TWO Decision **(External)**	**Nov-02**					
8	**Project Support**						
8.1	Open Project Office	Jun-01	■	■			
8.2	Purchase Land	Jul01-Jul02			■	■	
8.3	Establish EMS	Jul01-Jul02		■			AppxF
8.4	Develop Environmental Plan	Jul01-Jul02		■			AppxF
8.5	Develop H&S Plan	Jul01-Jul02		■			
8.6	Select Contractors	**Jul02-Sep02**	■	■	■	■	
8.7	Procure Materials	Jul02-Sep03		■		■	
9	**Delivery**						
9.1	Prepare Construction Analysis	Nov02-Jan03		■		■	
9.2	Site Preparation & Layout	Jan03-Mar03		■		■	
9.3	Construction to Design Brief	Mar03-Sep03		■		■	
9.4	Handover H&S file	**Oct-03**		■			
9.5	PR of Development	Nov02-Nov03	■	■			
9.6	Commissioning of Facilities	**Oct03-Jan04**	■	■		■	
9.7	Project Report handed to CKP	**Mar-04**	■	■	■	■	

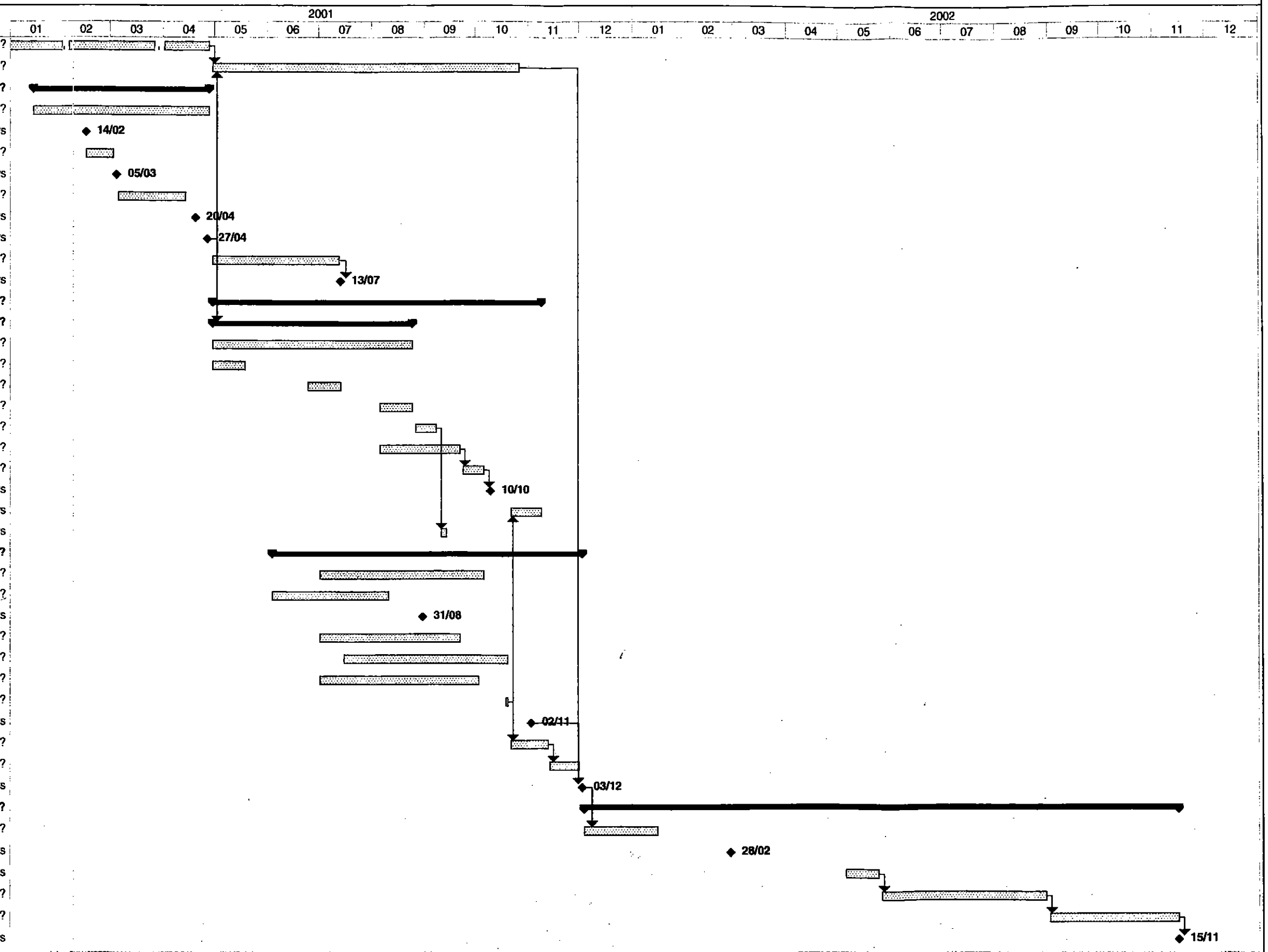
APPENDIX H

Bar Chart Outline Programme

CKP Railways plc
Reinstatement of Keswick to Penrith Railway

DRAFT

ID	Task Name	Duration
1	**Project Identification & Rationale**	79 days?
2	**Funding**	130 days?
3	**Option Appraisal**	**75 days?**
4	Engineering	75 days?
5	Initial Workshop	0 days
6	Environmental Information	12 days?
7	Second Workshop	0 days
8	Environmental Information	29 days?
9	Third Workshop	0 days
10	Preferred solutions	0 days
11	**Engineering Design**	54 days?
12	**Design Freeze**	0 days
13	**EIA**	**139 days?**
14	**Specialist studies**	**85 days?**
15	Analyses	85 days?
16	Consultation 1	15 days?
17	Consultation 2	15 days?
18	Review & comment	15 days?
19	Prepare for exhibitions	10 days?
20	Draft ES & NTS	35 days?
21	Review	10 days?
22	Finalise ES & NTS	0 days
23	Printing	14 days
24	**Exhibitions**	3 days
25	**TWO application**	**130 days?**
26	Order plans & sections	70 days?
27	Land Referencing	50 days?
28	Freeze limits	0 days
29	Book of Reference	60 days?
30	Planning drawings	70 days?
31	Draft Order & Memorandum	67 days?
32	CKP Approval	1 day?
33	Rule 5 notices	0 days
34	Printing	16 days?
35	Distribute	13 days?
36	Application	0 days
37	**TWO Determination**	**249 days?**
38	Objection period	31 days?
39	S of S decides on Public Inquiry	0 days
40	Public Inquiry	15 days
41	Inspector's Report	70 days?
42	Sec of State's Determination	55 days?
43	Decision	0 days



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Outline of front-end project activities

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