

Devon Main Line Route Options

DNPA Scoping Report

On behalf of **Dartmoor National Park Authority**



Project Ref: 33898/001 | Rev: 02 | Date: July 2015



Document Control Sheet



Project Name: Devon Main Line Route Options

Project Ref: 33898

Report Title: DNPA Scoping Report

Doc Ref: 002

Date: July 2015

	Name	Position	Signature	Date
Prepared by:	Ed Salter	Senior Consultant		23.07.2015
Reviewed by:				
Approved by:	John Baker	Partner		23.07.2015
For and on behalf of Peter Brett Associates LLP				

Revision	Date	Description	Prepared	Reviewed	Approved
001	June 2015	Draft Report	ES		AR

Peter Brett Associates LLP disclaims any responsibility to the Client and others in respect of any matters outside the scope of this report. This report has been prepared with reasonable skill, care and diligence within the terms of the Contract with the Client and generally in accordance with the appropriate ACE Agreement and taking account of the manpower, resources, investigations and testing devoted to it by agreement with the Client. This report is confidential to the Client and Peter Brett Associates LLP accepts no responsibility of whatsoever nature to third parties to whom this report or any part thereof is made known. Any such party relies upon the report at their own risk.

© Peter Brett Associates LLP 2015

Contents

1	Introduction	1
1.1	Introduction	1
1.2	Report structure	1
2	Context	2
2.1	Introduction	2
2.2	West of Exeter Route Resilience Study	2
3	Issues	6
3.1	Introduction	6
3.2	Socio-economic	6
3.3	Environmental.....	11
3.4	Summary	14
4	Recommendations	15
4.1	Introduction	15
4.2	Maximising opportunities	15
4.3	Minimising threats.....	15
4.4	Recommendations for further work	17

Figures

Figure 2.1	Route options appraised by Network Rail	2
Figure 2.2	Alternative Route A	4
Figure 3.1	Public Access	10
Figure 3.2	Environmental and Historic Designations	12

Tables

Table 3.1	Method of Travel to Work to and from West Devon	7
Table 3.2	Summary of opportunities and threats	14

This page is intentionally blank

1 Introduction

1.1 Introduction

- 1.1.1 PBA has been commissioned by Dartmoor National Park Authority (DNPA) to provide advice on the implications of opening an alternative rail line between Exeter and Plymouth via Okehampton in order to improve railway resilience in the South West.
- 1.1.2 In line with the requirements of the brief, this report sets out the findings of a high level appraisal of the key economic, social and environmental threats and opportunities relating to the potential new rail link and makes recommendations on the main issues for DNPA to consider as it enters into discussions with Network Rail.

1.2 Report structure

- 1.2.1 Chapter 2 of this report starts by summarising the context for the study. This includes setting out the main findings of the West of Exeter Route Resilience Study undertaken by Network Rail in 2014.
- 1.2.2 Chapter 3 provides an overview of the socio-economic and environmental threats and opportunities associated with the construction and operation of the new rail link, focussing predominantly on the section of former track bed running between Okehampton and Tavistock.
- 1.2.3 The final chapter of the report sets out guidance on key issues for DNPA to focus on in opening up negotiations with Network Rail should the new rail route via Okehampton be progressed further.

2 Context

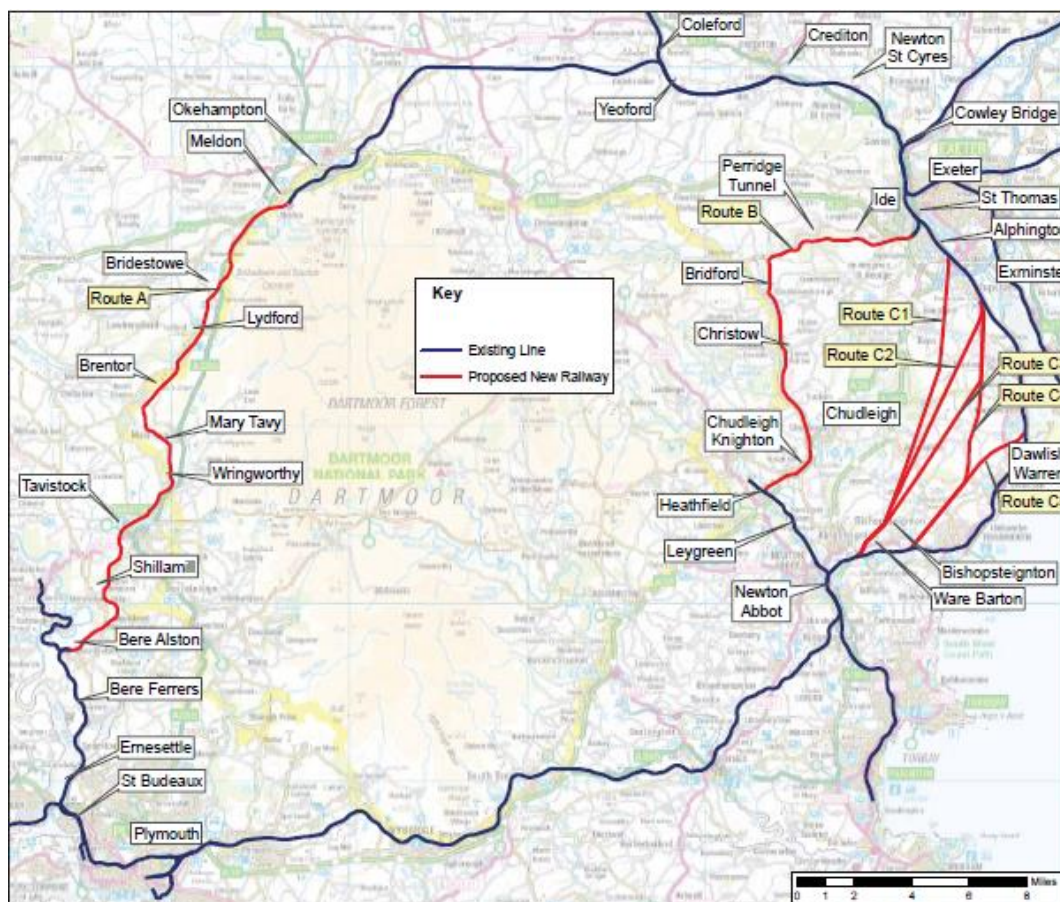
2.1 Introduction

- 2.1.1 This chapter sets out the background to the study, focussing specifically on the initial findings of an appraisal of alternative routes undertaken by Network Rail.

2.2 West of Exeter Route Resilience Study

- 2.2.1 In response to the disruption caused by the two month closure of the main line at Dawlish in 2014 the Government asked Network Rail to report on options to maintain a resilient rail service to the South West peninsula. The resulting study considers in transport economic terms whether, in addition to enhancing the Dawlish route, there would be value for money in establishing a new diversionary route capable of running current and foreseen services in the case of disruption on the mainline.
- 2.2.2 Network Rail considered five options as part of their work (see Figure 2.1). In order to qualify, the construction and operation of the options had to be considered feasible, and they should be safe to operate and maintain, resilient against environmental threats, and capable of accommodating all or most train services that are likely to run in the future.

Figure 2.1 Route options appraised by Network Rail



Source: Network Rail (2014) West of Exeter Route Resilience Study

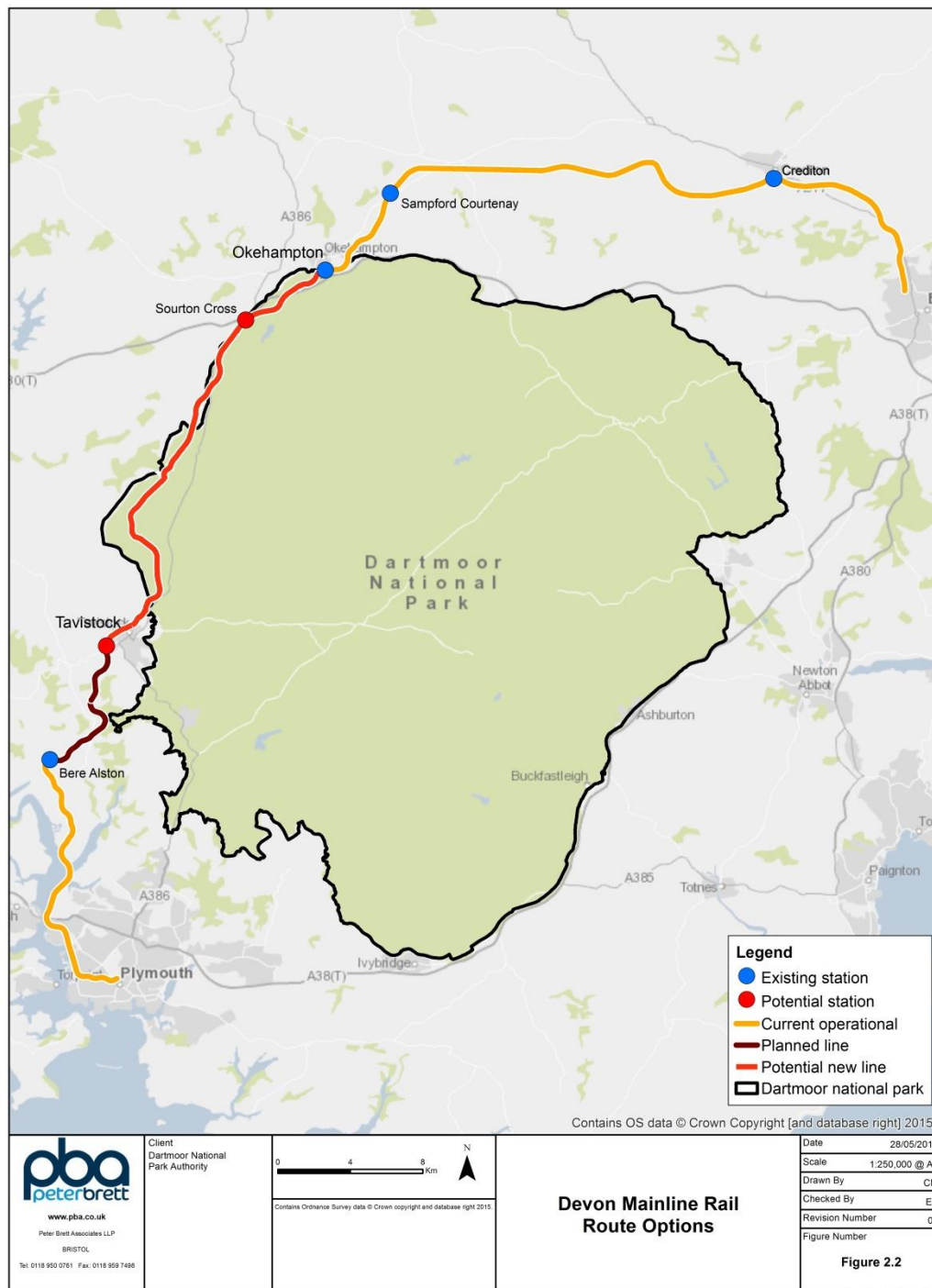
- 2.2.3 These options were:

- Option 1 – The base case of continuing the current maintenance regime on the existing route;
- Option 2 – Further strengthening the existing railway;
- Option 3 (Alternative Route A) – Re-opening the former London & South West Railway (LSWR) route from Exeter to Plymouth via Okehampton;
- Option 4 (Alternative Route B) – Constructing a double track railway on the alignment of the former Teign Valley branch line from Exeter to Newton Abbot; and
- Option 5 (Alternative Routes C1 to C5) – Five alternative direct routes would provide a new line between Exeter and Newton Abbot.

Option 3 (Alternative Route A)

- 2.2.4 Network Rail identifies that Alternative Route A, which is the subject of this study, would use the original alignment of the LSWR line throughout. At this stage the high level assessment of the route conducted by Network Rail indicates that it would be double track and would utilise the existing line between Cowley Bridge and Meldon Quarry via Okehampton Station. Beyond this section a new viaduct would be required at Meldon, as the existing structure is considered to be too badly deteriorated for re-use, and new line would need to be laid to Bere Alston. The existing trackbed would need to be cleared, a consolidated ballast bed installed, and drainage renewed as part of the works.
- 2.2.5 Re-opening the track between Okehampton and Tavistock is not straight forward as sections have either been lost to agricultural use or have been redeveloped for housing, employment or recreation uses. Beyond this, Devon County Council is already well advanced in developing plans for the re-opening of the track between Bere Alston and Tavistock.
- 2.2.6 In addition to either replacing or providing an alternative to Meldon Viaduct, the likely engineering works on route could involve:
- Raising approximately 13km of track by up to three metres on a combination of higher and wider embankments and replacement of some sections by low viaducts in the River Creedy valley to resolve flood risk issues;
 - It is likely that a proportion of existing embankments will need to be strengthened. The section between Tavistock and Okehampton, which is largely constructed on rock, may represent less of a problem;
 - A new 'parkway' station may be constructed at Sourton Cross (see Figure 2.2); and
 - In order to be electrified, the route would require further work to increase clearances at bridges over the railway.
- 2.2.7 Once operational, it is estimated that a local service operated by local passenger trains would take approximately 75 minutes to travel between Exeter and Plymouth, making intermediate calls at Crediton, Okehampton (potentially including an additional station at Sourton Cross), Tavistock, Bere Alston, Bere Ferrers, St.Budeaux Victoria Road, Keynham, Dockyard and Devonport. Discussions with Devon County Council indicate that this could be an hourly service. In addition to this, freight trains and a small proportion of First Great Western and Cross Country trains could operate on the route (in order for drivers to familiarise themselves with the journey). In the event of further disruption on the mainline, the route would need to accommodate two First Great Western/Cross Country trains per hour in addition to regular local services.

Figure 2.2 Alternative Route A



Appraisal outcomes

- 2.2.8 The delivery of core works associated with delivering Option 3 (Alternative Route A) are estimated by Network Rail to be £875m, although this could rise by £290m if the track bed has to be raised to allow for flooding.

- 2.2.9 Network Rail in their economic appraisal of each of the options concludes that they all offer poor value for money. At this stage a preferred option has not been identified, although the report identifies that the other alternative route options either may not be practical (Option 4) or may be significantly more expensive at between £1.49 billion and £3.10 billion (Option 5). Therefore, if an alternative route is progressed it is more likely than not to be Option 3 (Alternative Route A).
- 2.2.10 Despite this, Network Rail indicate that any further development of options would need to follow a step-by-step process including detailed surveys, examination of sub-options based on selected alignment(s), single option design and detailed design.

3 Issues

3.1 Introduction

- 3.1.1 This section sets out the key socio-economic and environmental threats and opportunities presented by the construction and operation of a new rail link to Plymouth via Okehampton. The identification of issues has been informed by consultations with Network Rail, Devon County Council (DCC), Historic England, Natural England, Sustrans, Visit Dartmoor and DNPA officers.
- 3.1.2 The potential impacts of the development need to be considered against Section 11A(2) of the National Parks and Access to the Countryside Act 1949 which requires that 'in exercising or performing any functions in relation to, or so as to affect, land' in National Parks relevant authorities 'shall have regard' to their purposes. This duty applies to all local authorities, not just National Park Authorities. It is relevant in considering development proposals that are situated outside National Park boundaries, but which might have an impact on the setting of, and implementation of, the statutory purposes of these protected areas.
- 3.1.3 Paragraph 116 of the National Planning Policy Framework (NPPF) states that 'planning permission should be refused for major developments' in a National Park 'except in exceptional circumstances and where it can be demonstrated to be in the public interest'. 'Consideration of such applications should be an assessment of:
- the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;
 - the cost of, and scope for, developing elsewhere outside the designated area, or meeting the need for it in some other way; and
 - any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated'.

3.2 Socio-economic

Opportunities

Social inclusion

- 3.2.1 Dartmoor National Park and neighbouring areas are, by their very nature, remote and residents are reliant on use of private vehicles in order to access employment and services. Analysis of the 2011 Census travel to work data reveals that some 4,312 West Devon residents travel to Exeter (1,339) and Plymouth (2,973) respectively for work (see Table 3.1). Of these, 88.3% of West Devon residents travel to Exeter by private motor vehicle, and a further 8.1% use the bus service. A similarly high percentage of West Devon residents travelling to Plymouth for work do so by private motor vehicle (90.5%) or bus (5.2%).
- 3.2.2 A new rail line would help address social exclusion in the more isolated parts of the National Park by improving resident accessibility to jobs and health services in the key population centres of Plymouth, Exeter, Okehampton and Tavistock. This in turn would help to reduce numbers of trips made by road, thereby contributing to reduced congestion along strategic routes and improved air quality in centres.
- 3.2.3 Businesses already located in the area are likely to benefit from improved access to a wider labour pool. A recent business survey¹ undertaken by the Diverse Regeneration Company

¹ Diverse Regeneration Company (2015) Business Survey South Hams, Teignbridge and West Devon

showed that 53% of West Devon respondents considered that poor public transport links are a causal factor in their difficulty in finding recruits for vacant positions.

Table 3.1 Method of Travel to Work to and from West Devon

West Devon residents travelling to Exeter and Plymouth

	Exeter	Plymouth
Total	1,339	2,973
Private motor vehicle	88.3%	90.5%
Bus	8.1%	5.2%

Exeter and Plymouth residents travelling to West Devon

	Exeter	Plymouth
Total	186	1,028
Private motor vehicle	85.5%	90.3%
Bus	3.8%	6.3%

Source: Census 2011

- 3.2.4 The reinstatement of rail services is also likely to have a beneficial impact on education attainment rates of young people living in the National Park. At the moment a large majority of pupils living in the area have to travel to Plymouth or Exeter by road in order to participate in further and higher education². The length of journey and the suitability of bus services can either result in a higher drop-out rate of courses or reduced take up of further education in the first place. The railway could therefore help improve take-up and achievement of resident qualification attainment levels and potentially reduce the 'brain drain' effect from the more peripheral rural areas of Devon.

Inward investment

- 3.2.5 Analysis of the Business Register and Employment Survey (BRES) shows that the economy of Dartmoor National Park is still dependent on tourism related activities and public sector employment. Furthermore, Okehampton in particular experienced significant job losses in the manufacturing sector during the recession. A recent report³ on the Dartmoor economy does however reveal that there is a growing services sector dominated by a high proportion of micro-enterprises undertaking activities like software development and management consultancy. The further diversification of the local economy into high value sectors will be important for sustaining rural communities and helping the area as a whole to become more resilient to market fluctuations.
- 3.2.6 The reopening of the rail line could help to attract inward investment to the area in the form of business relocations and start-ups, tourism (which is covered in the next section) and housing development. The location of new stations in and next to Okehampton in particular will prove particularly attractive to businesses that need access to a pool of staff and the ability to easily visit clients and potential customers. Indeed the recent Diverse Regeneration Company survey found that 47% of existing West Devon businesses feel that the rail link would enable better access to their markets, whilst 37% feel that it will improve access to suppliers⁴. As a result of this, people may be more likely to consider setting-up, or relocating, their businesses in villages and more rural locations of Dartmoor.
- 3.2.7 Housing developers would be more likely to target Okehampton and Tavistock as more people seek an alternative lifestyle that is easily accessible to and from larger urban areas. The spend of new working age residents would in turn have knock on benefits for local businesses and town centre vitality and viability. Whilst this presents an opportunity it is however important that local authorities, in determining planning applications and identifying allocations, pay due regard to Section 62 of the Environment Act 1995 which makes clear that if National Park purposes are in conflict then conservation must have priority.

² Greengauge 21 (2015) Rural Connections: the Social Benefits of Rail Reopening – Exeter-Okehampton-Tavistock-Plymouth: A Case Study

³ Serio, Red Group, Ecorys (2013) Dartmoor's Sector Outlooks

⁴ Diverse Regeneration Company (2015) Business Survey South Hams, Teignbridge and West Devon

Tourism

- 3.2.8 Dartmoor National Park attracted some 2.18 million visitors in 2014, of whom 1.92 million were day trippers⁵. In total, these visitors spent approximately £131.8m in the local economy, which in turn supported 2,307 jobs. These visits and associated spend tail off considerably in the shoulder months of October to March.
- 3.2.9 Surveys undertaken at Dartmoor Visitor Centres⁶ show that a large proportion of visitors to the National Park are aged over 45 years old (69%) and had travelled there by private motor vehicle (91%). The main reasons given for visiting Dartmoor were for 'general sightseeing' (49%) or 'walking' (31%).
- 3.2.10 The provision of a regular train service that links Dartmoor with the large urban population centres of Exeter and Plymouth, and further afield, would help to open up the area to new visitor markets and could help to reduce the number of trips made by car. Visit Dartmoor consider that the rail link would be particularly attractive to day trippers who would be able to easily access the moor for walking and cycling from Okehampton and/or Tavistock. It could also help to make Dartmoor more accessible to new market segments, like University students and 'hard to reach' groups, who do not have access to a car. Furthermore, it could help to extend the visitor season further into the shoulder months.
- 3.2.11 Additional numbers of day and staying visitors would result in the knock on benefits of increased spend in local shops, restaurants, accommodation providers and recreation based businesses. These businesses would in turn help to sustain the local economy by providing more employment, potentially throughout the year.
- 3.2.12 Much of the potential benefit could only be realised, however, through improvements to the public right of way network between Okehampton and Tavistock and further afield to enhance links to smaller rural communities and moorland. In addition to this, the capacity of local passenger trains should be reviewed to ensure there is sufficient room for those travelling with bicycles.

Construction employment

- 3.2.13 The construction of the railway, including new viaduct/s, would be a significant undertaking. Based on standard economic impact assessment methods it can be estimated that the development of the proposed scheme could directly support 542 full time equivalent (FTE) jobs⁷.
- 3.2.14 Additional employment could also potentially be supported at Meldon Quarry. Prior to its closure during the recession, much of the material extracted from the quarry was used as ballast by the railway industry. It may prove economically viable to reopen the quarry to provide the necessary ballast for upgrading and reinstating the track bed should a decision be taken to progress the alternative route.
- 3.2.15 Some of these employment opportunities could potentially be taken up by local residents. The spending of the construction workforce would also help to support further jobs in the local economy particularly in shops, pubs and accommodation providers.

⁵ Global Tourism Solutions (UK) Ltd (2015) Dartmoor National Park STEAM Report for 2009-2014

⁶ The Tourism Company/Future Focus Research (2012) Dartmoor National Park Information Centre User and Non-user Research

⁷ Total construction costs (£875m) divided by Dept. for Business, Innovation and Skills turnover per construction worker (£161,439) = 5,420 construction years. It is generally accepted in economic appraisals of development schemes that 10 person years of full time continuous employment is equivalent to one permanent full time equivalent (FTE) job. On this basis the proposed project could support 542 direct gross FTE jobs.

Threats

Cycleways

- 3.2.16 There is considerable concern that the Granite Way cycle path, which runs along the track bed of the disused railway between Okehampton and Lydford, could be lost if the rail link is reinstated as double track. DCC consider that, if the reinstatement were planned as a predominantly single track route, with dynamic passing loops, the potential for sharing the track bed between the railway and cyclists could be feasible.
- 3.2.17 The cycle path is part of the National Cycle Network and Devon Coast to Coast route and has become a very popular part of the recreational infrastructure of Dartmoor. Devon County Council counters on route indicate that on average over one hundred cyclists travel along the route each day, peaking at an average of 217 per day in August⁸.
- 3.2.18 Anecdotal evidence from Visit Dartmoor indicates that a number of local cycle hire, shops and pubs are sustained by cyclist and walker spend and many others benefit. This beneficial economic impact to the local economy will be further enhanced through multi-million pound investment in the wider cycling network on Dartmoor as part of the Granite and Gears project.

Public Rights of Way

- 3.2.19 As stated in paragraph 3.2.6, one of the main reasons people visit Dartmoor is to go for a walk. The maintenance of the Public Rights of Way network is therefore a key element in sustaining tourism on and around Dartmoor.
- 3.2.20 Figure 3.1 indicates that in addition to people being able to enjoy walks along the Granite Way, there are a number of footpaths that cross the potential route of the railway. The reinstatement of the railway could also result in the loss of well utilised multi-use paths through Tavistock. These would all be severed by the railway unless safe crossing places are installed (potentially as part of the Development Consent Order), or would need to be diverted.
- 3.2.21 The railway would also run close to a number of long distance footpaths, including the Two Moors Way, West Devon Way and Dartmoor Way. There is concern that these footpaths may not be as well used if the tranquillity of the area and landscape qualities are eroded during the construction and operation of the railway.

Farming

- 3.2.22 Much of the section of railway that would be reinstated has now reverted back to farmland. The relaying of tracks and new ballast would result in the severance of a number of farmsteads unless crossing solutions are installed. Without suitable crossings some of these farms could be rendered unviable as cattle would need to be driven significant distances. Furthermore, the strengthening and widening of embankments and track bed could affect the drainage of sections of land. In addition, any cessation in the grazing of protected habitats, including Rhôs Pasture, could result in Purple Moor Grass dominance and scrub encroachment, which may in turn result in the loss of rare species.

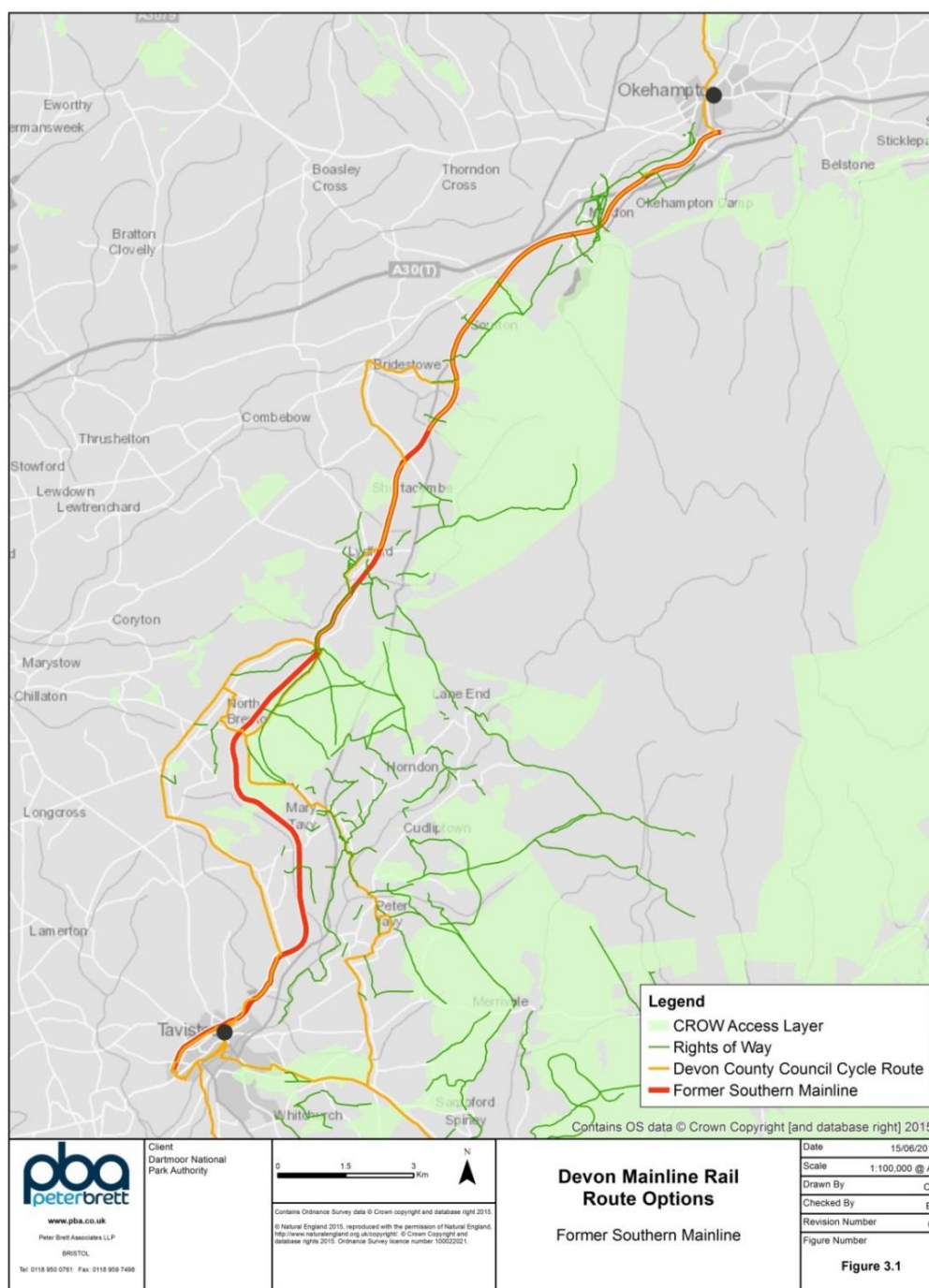
Housing and businesses

- 3.2.23 Although much of the track bed is still intact, there are a number of sections that have been developed for housing and/or employment uses. These include the West Devon District Council offices and a new housing estate to the north of Tavistock. These developments would likely need to be removed in order to construct the railway. The owners of these sites would be compensated for their loss as part of the Compulsory Purchase process.

⁸ Devon County Council Route Counter Monitors

- 3.2.24 There is also a possibility that land and property owners in close proximity to the railway could see the value of their assets diminished. Under the Land Compensation Act 1973 such land and/or property owners should be eligible for compensation if their assets are devalued by negative physical impacts including noise, vibration, smell, fumes, smoke, artificial light or the discharge of solid or liquid substances.

Figure 3.1 Public Access



3.3 Environmental

Opportunities

Maintenance of structures

- 3.3.1 There are a number of viaducts on route which would be retained, including Lake Viaduct. Network Rail would take on the maintenance of the railway and help to ensure the long term preservation of the historic structures.

Reducing road congestion

- 3.3.2 As identified in paragraph 3.2.2, the reinstatement of the railway could have a positive influence on resident and visitor travel mode choices. The removal of a proportion of trips that would otherwise have been made by road would help to reduce congestion and linked noise and air pollution.

Threats

Visual impact and landscape character

- 3.3.3 Although the route of the railway follows the edge of the National Park it will be visible from large areas of moorland to the east, including Yes Tor. The Dartmoor Landscape Character Assessment defines the area as 'Moorland Edge Slopes'. These landscape areas are characterised by 'an intricate pattern of medieval fields with post medieval hedgebanks enclosing small fields of pasture and rough grazing'. The Character Assessment highlights the importance of protecting and maintaining the medieval field patterns and sparsely settled character with key views to the moorland.
- 3.3.4 It is likely that large sections of the route could be naturally screened by existing woodland, although it is unclear at this stage how much of this would be retained. There are however sections of route that have reverted back to farmland that would be highly visible. At this stage it is unclear as to whether any additional land take would be required in order to incorporate sidings and/or construction compounds.
- 3.3.5 All relevant authorities have a duty to have regard to National Park purposes under Section 62 of the Environment Act (1995). It should be recognised that the setting of the National Park is an important consideration in the planning and design of the railway. The landscape setting for the National Park is the area whose landscape character complements that of the National Park itself, either through similarity or contrast, and in some way supports or enhances its landscape through views into or out of the National Park.

Erosion of tranquillity

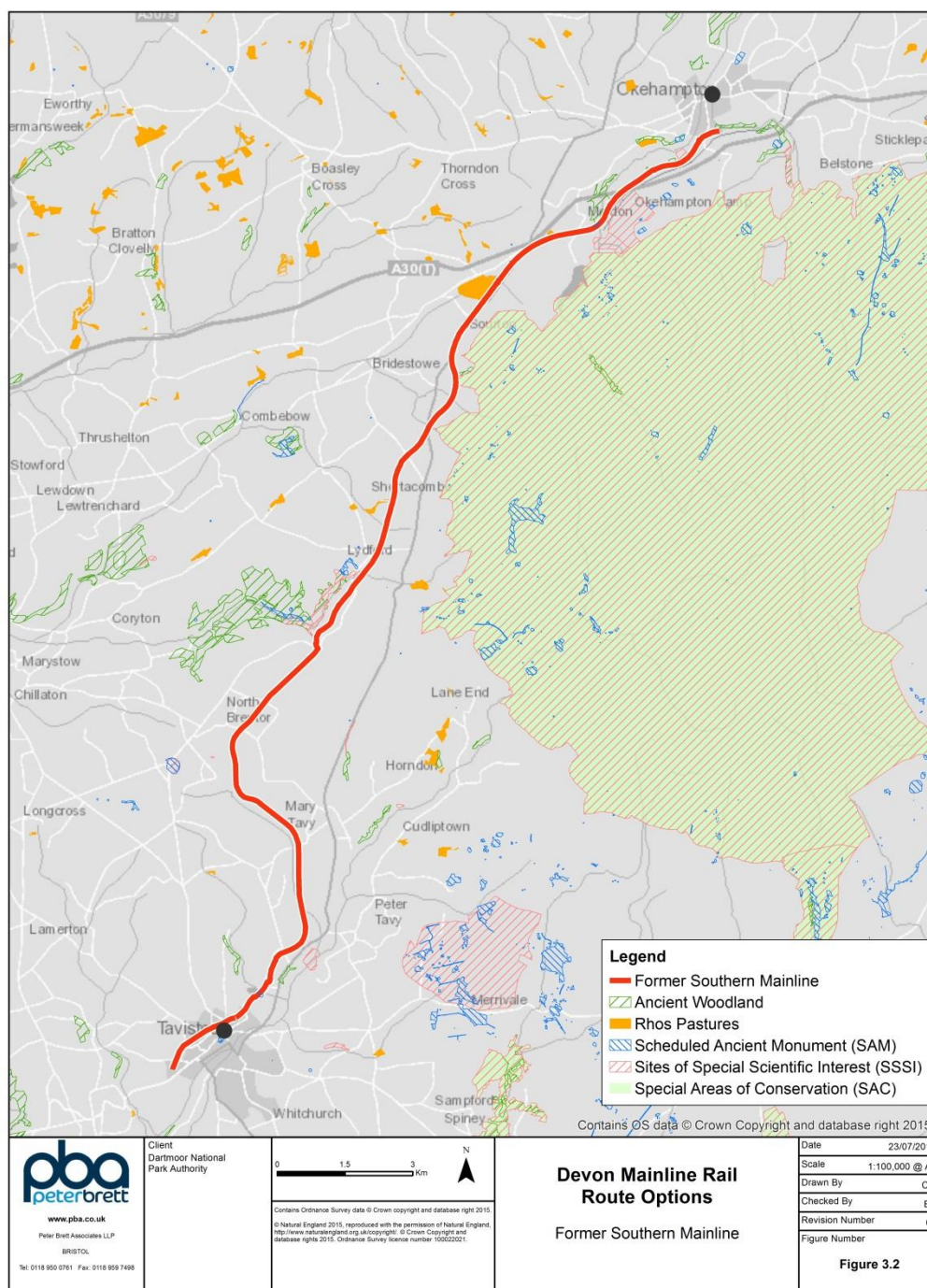
- 3.3.6 The national mapping of tranquillity undertaken by CPRE shows that Dartmoor is the largest unbroken area of tranquillity in southern England⁹. The mapping shows that more than 70% of Dartmoor is classified as tranquil or very tranquil, and over 50% of the area experiences dark skies unaffected by light pollution. At the same time however the latest mapping highlights that the tranquillity of the area has already been negatively impacted along the A30 and A386 corridors.
- 3.3.7 Experiencing the tranquillity is part of the attractiveness of Dartmoor for visitors and, as a result, its protection is prioritised in the National Park Management Plan. The reopening of the line for regular local passenger trains could erode the tranquillity of the western fringe areas of

⁹ CPRE Tranquillity Mapping: South West

Dartmoor. Furthermore, the trains, signals and potential new station at Sourton Cross have the potential to increase levels of light pollution.

- 3.3.8 Of greater concern is the potential use of the line for freight services. Freight trains generally produce greater levels of noise and vibration than local passenger services. Despite the fact that freight services have previously operated along the line, their reinstatement could undermine the tranquillity qualities of the western edge of the moor.

Figure 3.2 Environmental and Historic Designations



Damage or removal of historic structures

- 3.3.9 The only Scheduled Ancient Monument that could be directly affected by the reopening of the railway is Meldon Viaduct. The West of Exeter Resilience Study states that the viaduct is too badly deteriorated for re-use and that a new structure would be required. At this stage it is too early to assess whether or not an alternative route can be developed that avoids the alignment of the viaduct. Even if the removal of Meldon Viaduct can be avoided the setting of it will be significantly altered by the construction of a new crossing adjacent to it. Should it be confirmed that the Meldon Viaduct Scheduled Ancient Monument will need to be removed or altered, an application will need to be made to Historic England to have it 'descheduled'.
- 3.3.10 Paragraph 132 of the NPPF sets out that 'substantial harm to or loss of designated heritage assets of the highest significance, including scheduled ancient monuments and grade I and II* listed buildings, should be wholly exceptional'. It goes on to highlight that 'where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh harm or loss'.
- 3.3.11 At this stage Network Rail has indicated that the other existing viaducts, some of which are listed, are likely to be fit for purpose.
- 3.3.12 In addition, there are numerous bridges over the existing and former track bed. Although these bridges are not listed they are of historic value and provide vital road and farm connections. The existing bridges are likely to be suitable for accommodating double tracks. However, they would likely need to be altered or removed should the line be electrified in the future.

Ecology

- 3.3.13 The rail line would run adjacent to Rhôs Pastures that are protected by SSSI status. Rhôs pastures (species rich purple moor grass and rush pastures) are an internationally rare habitat. They are described in the Devon Biodiversity Action Plan as arguably the county's most important habitat and Dartmoor, with some 1,100 hectares of Rhôs Pasture, has approximately 20% of England's resource. Despite this, however, only one area of Rhôs Pasture is designated as an SSSI. The remainder, which are identified as County Wildlife Sites, are not afforded from the same level of statutory protection.
- 3.3.14 Rhôs pasture is home to marbled white butterflies, which can be abundant, small pearl-bordered fritillary and the highly protected marsh fritillary which is found in colonies representing about 20% of the English resource. One of Britain's rarest damselflies, the southern damselfly, also occurs in a single Rhôs pasture on Dartmoor. The rare narrow-bordered bee hawkmoth, which feeds on Devil's-bit Scabious, can also be found, often in association with marsh fritillary.
- 3.3.15 Rhôs Pastures are defined by wetness – 'the marriage of a damp climate, mild southerly conditions and saturated, ill draining acid soils'¹⁰. As such they are vulnerable to changes in hydrology. There is therefore concern that the reinstatement of the track bed, with strengthened embankments and ballast, could alter the drainage of the surrounding land and result in potential irreversible damage to Rhôs Pastures.
- 3.3.16 In addition to these concerns, Natural England and DNPA officers have highlighted the importance of ancient woodlands and a number of protected species in the area. Both the Meldon Aplite Quarry Geological SSSI and the Meldon Woods Ancient Woodland could potentially be impacted by the realignment of the track bed and construction of a new viaduct. The Ancient Woodland and lines of trees along the former track bed are important habitats for

¹⁰ Devon County Council – Devon Biodiversity Action Plan – Rhôs Pasture

species like dormice, bats and birds. Furthermore, hedgerows that now cross the track bed form important wildlife corridors for mammals, including bat flight lines and foraging areas, and should be preserved wherever possible.

3.4 Summary

- 3.4.1 Table 3.2 sets out a summary of the range of opportunities and threats that could arise should the rail link between Exeter and Plymouth via Okehampton be reinstated. These issues have been identified through consultation with key stakeholders including DNPA, Natural England, Historic England, Sustrans and DCC.

Table 3.2 Summary of opportunities and threats

Socio-economic	Environmental
Opportunities <ul style="list-style-type: none"> Improved transport choice and greater accessibility to Plymouth and Exeter for residents and businesses Improved accessibility to Dartmoor for visitors, including in younger age groups, with knock-on benefits for businesses and local employment The potential of attracting new businesses and residents to Okehampton and Tavistock in particular 	Opportunities <ul style="list-style-type: none"> The ongoing maintenance of historic structures on route would be secured Increasing resident, worker and visitor use of the railway would reduce the number of trips made by road, thereby reducing air pollution and congestion in town centres
Threats <ul style="list-style-type: none"> Potential loss of the off-road section of the Granite Way. This would undo significant investment in the improvement of Dartmoor's cycling network and negatively impact on the local economy Potential severance or diversion of PROWs could convince visitors to walk at different sections of Dartmoor A number of farmsteads could be severed and farmland could be spoilt by changes to soil drainage 	Threats <ul style="list-style-type: none"> Concerns over the visual impact of the railway from eastern fringes of Dartmoor, as well as undermining of tranquillity qualities through noise and light pollution Potential removal or alterations to the structure, or damage to the setting, of Meldon Viaduct Scheduled Ancient Monument Potential damage to Rhôs Pasture, SACs/SSSIs/County Wildlife Sites, Ancient Woodland and habitats favoured by protected species

4 Recommendations

4.1 Introduction

- 4.1.1 Chapter 3 highlights a number of opportunities and threats that could arise as a result of the reinstatement of the Exeter to Plymouth rail link via Okehampton. Under the legal powers set out in the Environment Act 1995¹¹, DNPA has a key role to play in seeking to maximise the benefit of the potential opportunities on offer and should seek to ensure that threats to the future of key recreational infrastructure and the natural and historic environment are mitigated. Section 62 of the 1995 Act requires any relevant authority (such as various public bodies and statutory undertakers), when exercising or performing functions which relate to or affect land in a National Park, to attach greater weight to the purpose of 'conserving and enhancing' if it appears that there is a conflict between the two National Park purposes.
- 4.1.2 The Government believes that in most cases it remains possible to avoid potential conflicts through negotiation and well considered planning and management strategies and expects the NPAs to take the lead in encouraging mediation, negotiation and co-operation. With this in mind, the following sections identify a number of priorities that DNPA and partner authorities should focus on in advance of, and during, negotiations with Network Rail should the alternative route option be progressed further.

4.2 Maximising opportunities

- 4.2.1 The main opportunity associated with reopening the Exeter to Plymouth rail link via Okehampton is the potential to attract greater numbers of staying and day visitors to Dartmoor. This could have significant beneficial impacts on the local economy. In order to maximise this opportunity, DNPA and DCC, in partnership with the rail service provider, should conduct a comprehensive marketing campaign to promote Dartmoor and the range of activities available within close proximity to new stations.
- 4.2.2 In order to further support the efforts of DCC and Sustrans to increase levels of cycling tourism on Dartmoor it is recommended that DNPA should negotiate for the installation of bike lockers and racks at stations and the clear delineation of safe links to existing routes. Furthermore, it is recommended that negotiations take place with the train operator in order to push for above average provision for bike capacity of rolling stock.

4.3 Minimising threats

Socio-economic

- 4.3.1 It is important that the existing cycle and PROW network is not negatively impacted by the re-opening of the railway. Should the railway be re-laid along the old route it is important that the Granite Way cycle route is reinstated alongside it. This would involve additional land take and preferably the development of new purpose built viaducts, similar to the Gem Bridge on Drake's Trail. Any engineering solution that involves a significant fall and rise in gradient at valleys should be resisted.

¹¹ The Environment Act 1995 sets out two statutory purposes which DNPA has the duty to pursue:

- to conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park; and
- to promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public

It also has the duty to seek to foster the economic and social well-being of local communities within the National Park.

- 4.3.2 It is also important that DNPA and DCC insist that Network Rail reinstate the PROW network as close to its existing coverage as possible. In order to achieve this there will need to be PROW diversions during the construction phase and safe crossing place solutions installed when the rail route becomes operational. These crossing places could potentially double up as farm access routes. In addition to this the creation of new PROW and cycleway links between settlements and a new station at Sourton Cross should be delivered through the planning process.

Environmental

- 4.3.3 The mitigation of environmental impacts should be addressed as far as possible during the planning and construction phase of the railway. The Environmental Impact Assessment would identify the range and extent of likely impacts and would propose mitigation measures that can be incorporated into the design and/or planning conditions.

- 4.3.4 In their negotiations with Network Rail, DNPA should ask that the following measures are either actioned or taken into account:

- That rail services are limited to local passenger trains for the majority of the time. The use of the line for freight services would result in greater levels of noise and vibration. DNPA may seek to challenge any plans to run freight along the line unless appropriate mitigation solutions can be incorporated into the design of the railway that do not negatively impact on landscape and ecology;
- The long term protection of the Rhôs Pasture SSSI and County Wildlife Sites is ensured through careful construction and on-going management of drainage systems;
- Damage to the Ancient Woodland and geological SSSIs at Meldons should be kept to a minimum;
- Any habitat loss, including potential infringement on the Lydford Railway Ponds SSSI, should be compensated through habitat compensation/mitigation schemes;
- Existing woodland along the route of the railway should be retained as far as possible in order to achieve natural screening and protection of habitat corridors. To allow for a double track and a potential cycle track to be accommodated it is recommended that additional land take, woodland removal and habitat recreation takes place on the western side of the route (i.e. opposite side to Yes Tor) in order to maintain mature natural screening of the route from key viewpoints to the east;
- New tree lines are planted along certain sections in order to bolster natural screening of the railway from the eastern fringes of Dartmoor and to complete habitat corridors;
- Lighting along the railway is kept to a minimum, including at the potential new station at Sourton Parkway. Low lux down lighting should be utilised wherever possible and only turned on during periods of operation;
- Sourton Cross is within the National Park boundary and is bordered by habitats protected by SAC and SSSI status. The design and construction of a new station at Sourton Cross, including highway access and car parks, must therefore be handled sensitively to ensure visual impact and habitat damage are minimised. Measures should also be implemented to ensure that road verges are not used for car parking;
- The setting of Meldons Viaduct Scheduled Ancient Monument and surrounding landscape should be protected as far as possible by ensuring that a new viaduct adjacent to it is carefully designed and finished with granite or 'granite effect' materials. The design of all new infrastructure should be informed by the Dartmoor Landscape Character Assessment

- Construction noise, dust and visual impact should be kept to a minimum through the implementation of an agreed Construction Management Plan (CMP). Wherever possible materials and construction traffic movements should be made along the route of the existing track bed as opposed to local roads. Any waste should either be recycled on site or removed from the National Park; and
- Any required construction compounds should be located away from sensitive habitats and ideally outside the National Park boundary.

4.4 Recommendations for further work

- 4.4.1 One of the main concerns raised by stakeholders is the potential loss of the Granite Way cycle route. As such it is vital that the importance of the route is highlighted to Network Rail by the DNPA, Sustrans and DCC. It is therefore recommended that a socio-economic impact assessment is either undertaken in house or commissioned that identifies the value of the existing route to the local economy. In addition, this study should look at the potential economic impact of new rail services on cycle path use levels, assuming that an alternative path is retained.
- 4.4.2 Coupled with this, it is recommended that feasibility work is undertaken or commissioned by DCC and/or Sustrans to help identify the best off-road route alternative to the Granite Way. This study should look at the most suitable ways of crossing valleys and minimising environmental impact. Most importantly it should provide outline costs for delivering the preferred alternative.
- 4.4.3 If required, DNPA and partners should also consider commissioning an independent acoustic and vibration assessment to identify the likely increase in impact of freight over passenger services. The evidence presented in the report may prove to be invaluable in helping to build a case either against the operation of freight services or for the creation of a bund to mitigate against noise pollution.