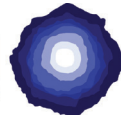


# **YORK POTASH LTD**

## **APPLICATION TO CARRY OUT MINERAL WORKING AND ASSOCIATED DEVELOPMENT**

September 2014





# YORK POTASH

Economic Impact Report

This Economic Impact Report, dated October 2014, supersedes all previous versions, namely:

York Potash Economic Benefits Summary Report 13 May 2014

York Potash Economic Impact Report September 2014



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# 00 EXECUTIVE SUMMARY

## Introduction

0.1 This report sets out Quod’s assessment of the economic impacts of the York Potash Project. It forms part of York Potash Ltd’s (YPL’s) evidence base that supports the planning applications for a polyhalite Mine and related mineral transport and handling facilities, including a Harbour Facility on Teesside. The report assesses the cumulative economic impact of all of the Project’s components.

0.2 The development will bring significant national benefits and contribute to the Government’s core economic objectives of increasing economic growth, rebalancing the economy, increasing exports, achieving Full Employment and reducing the deficit.

## Summary of Impacts

- A contribution to GDP of over £1bn per annum at full production would permanently add up to 10% to the economic output of North Yorkshire, and permanently increase the size of the York, North Yorkshire and East Riding Local Enterprise Partnership (LEP) area economy by up to 5%.
- Exports of £1.2bn each year would reduce the UK’s trade deficit by 4%.
- Creating over a thousand high-value direct jobs, and many more in the supply chain, would boost the employment rate by 0.25 percentage points within the travel to work area and increase spending power. This could make a significant contribution to reducing unemployment.
- Annual tax contributions of up to £234 million per annum would strengthen the UK’s fiscal position and contribute to reducing the deficit.
- Royalty payments would generate wealth, create additional jobs and improve local facilities.
- The £1.7bn investment by York Potash will additionally generate significant construction impacts that would boost local, regional and national economies.

Table E1: Summary of Operational Impacts

Permanent Operational Impacts	Initial Production (6.5Mtpa)	Full Production (13Mtpa)
Direct Jobs	700	1,040
Indirect and induced jobs	600	1,100
Direct Gross Value Added/annum	£500m	£1bn
Exports/annum	£600m	£1.2bn
Tax Contribution /annum	£117m	£234m
Local Payments /annum	£27m	£48m

Table E2: Summary of Construction Impacts

Construction Impacts	Initial Production (6.5Mtpa)	Increase to 13Mtpa
Peak Construction employment	1,670	380
Construction Jobs (average per year)	770	230
Indirect and induced jobs (average per year)	1,660	1,080
GVA (over the construction period)	£910m	£200m
Tax Contribution (over the construction period)	£156m	£32m

## Policy Context

03. This report sits alongside a number of other documents that collectively demonstrate how the proposed scheme complies with planning policy and in particular focuses on how the Project as a whole contributes to meeting national need, as well as local policy objectives. Assessments of individual components are included in their respective Environmental Statements and further assessments will provide disaggregation to different spatial scales.

0.4 The Government's policies supporting economic growth include the Local Growth White Paper (BIS, 2010), the BIS and HM Treasury Business Plans 2012-15 (BIS & HMT, 2012), Autumn Statement 2013 - Reducing the Deficit and Rebalancing the Economy (HMT, 2013), and the Plan for Growth (BIS & HMT, 2011). These overarching policies also underpin the National Planning Policy Framework (NPPF) which articulates a presumption in favour of sustainable development (Paragraph 14).

0.5 Paragraph 116 of the NPPF states that consideration of applications in National Parks should include an assessment of the need for the development, including national considerations, and the impact on the local economy. The "national considerations" are set out in the policies stated above and the overarching themes of these policies are:

- Reducing the deficit;
- Rebalancing away from the public sector and towards the private sector;

- Rebalancing away from services and consumption towards production and in particular investment and exports; and
- Rebalancing away from London and the South-East and encouraging faster economic and employment growth in the Midlands and North.

0.6 It is clear that the York Potash Project would make a substantial contribution towards delivering these priorities at a national level and the economic objectives of the local area.

## Baseline

0.7 Whilst the mine sits within the National Park, its influence will be felt outside the Park's boundaries, within the Park's Travel-to-Work Area (TTWA). This incorporates large parts of Teesside, in particular Redcar and Cleveland Borough, and Scarborough Borough, two areas where there are significant pockets of extreme deprivation that are amongst the most deprived in the country.

0.8 The two boroughs have experienced stagnant or even declining population at a time when the UK's population is growing, and they are projected to fall even further behind in the next decade. In part, this is because they have relatively few jobs per 1,000 population and have high unemployment and low employment rates.

0.9 Even within the relatively prosperous Park boundaries, there are issues of an ageing population and out-migration of young people and a heavy reliance on sectors that are at risk of decline – such as agriculture and public services (including defence) – or offer a lot of part-time or seasonal work such as tourism.

0.10 Related to the economic structure, low productivity is a problem across the wider TTWA

and economic growth has lagged behind the national average. As a result, wages in Teesside and Scarborough are also significantly lower than the national average.

0.11 Tourism is a key sector in the local economy, supporting economic activity and employment, and the strength and sustainability of the sector is a priority for NYMNP.

## The Market for Polyhalite

0.12 The amount of polyhalite that YPL can sell will be a function of the price it charges. YPL has commissioned additional research from world leading industry experts CRU Strategies into the markets for polyhalite. A full report from CRU has been submitted as part of the supporting documents for the application. This report provides evidence that there will be a demand for polyhalite at different price levels, and based on this market demand, the York Potash Project will deliver significant economic benefits.

0.13 The CRU report identifies a “demand window” of prices and quantities for 2018 at which it forecasts YPL will be able to sell polyhalite. At the bottom of the window, prices are driven down by a strong response from competitors who may choose to cut prices to maintain their market share (a condition CRU believes is unlikely to exist in the long term). At the top of the window, it assumes there is no pricing response from competitors who choose to protect profit margins rather than volumes.

0.14 This study has confirmed that there would be market capacity to absorb YPL’s production at 6.5Mtpa and 13Mtpa at prices ranging from \$110 to \$170. The range between the no industry response scenario and high industry response

scenario illustrates the two possible extremes of industry reactions, and hence show the entire likely spectrum of polyhalite demand variation. CRU believes that the actual price will sit somewhere between the two scenarios.

0.15 This assessment of economic benefits in this report has therefore been undertaken on the basis of an average price for polyhalite of \$150/t (£94) with YPL selling 6.5Mtpa in 2021 and 13Mtpa in 2024. This is consistent with YPL’s current marketing and the 5Mtpa that is already subject to off-take agreements, memoranda of understanding and framework sales agreements.

## Construction Impacts

0.16 YPL is proposing an investment of nearly £1.7bn to reach an output of 13Mtpa. The initial construction period – scheduled to last around 58 months – involves spending just under £1.4bn across the Project as a whole, to reach a production capacity of 6.5Mtpa. An additional investment of £306m will increase capacity from 6.5Mtpa to 13Mtpa. This large scale investment would lead to the creation of jobs, and increases in GVA, wages, exports and tax receipts.

## Operational Impacts

0.17 The proposed scheme will create a range of economic benefits including new investment, employment, GDP, tax revenue and exports. The scale of these is so substantial that the benefits will significantly boost the local, regional and national economies, and reduce the trade deficit, thereby contributing directly to achieve the Government’s key economic objectives.



### Employment

0.18 The following table sets out the operational workforce for the initial phase of up to 6.5Mtpa, and for the further phase up to 13 Mtpa.

Table E3: Operational Employment

Component	6.5Mtpa	13Mtpa
Mine	435	725
Mineral Transport System (MTS)	90	90
Materials Handling Facility (MHF)	85	110
Harbour Facility	25	35
Head Office	65	80
<b>Total</b>	<b>700</b>	<b>1,040</b>

0.19 As with the construction phase, there will be wider multiplier benefits during the operational phase as YPL spends money through its supply chain that supports jobs at other companies and as its employees spend their wages in the local economy, amounting to over 600 additional jobs created at a production rate of 6.5Mtpa and more than 1,000 at full production.

### GDP Impacts

0.20 The contribution to GDP is expected to be £500m per annum in 2021 and £1bn per annum in 2024. At full production, the Project would permanently increase the economic output of North Yorkshire by 10% and would permanently increase the output of the York, North Yorkshire and East Riding LEP area economy by 5%. The multiplier impacts would create a further GDP uplift of up to £75m.

### Exports

0.21 As well as boosting GDP, the Project will help reduce the UK’s trade deficit which was £27bn in 2013 – that is, we imported £27bn worth of goods more than we exported with more money going out of the country on traded goods than was coming in. Addressing this deficit is a major part of the Government’s economic policy.

0.22 YPL anticipates the vast majority of its product will be exported with approximately 125,000 tonnes of the first 6.5Mtpa and 175,000 tonnes of 13Mtpa being sold into the UK market, and the rest exported. At full production, this would equate to £1.2bn of exports each year and would reduce the UK’s trade deficit by just under 4%.

### Tax

0.23 The Project will make a significant contribution to the national exchequer. The Government will collect income tax from the workers’ salaries (both direct and indirect), from shareholders (on their dividends) and from landowners who receive royalties. They will also receive Capital Gains Tax, Stamp Duty, Corporation Tax and VAT (on domestic sales).

0.24 Total receipts for central Government would be £117m per year at 6.5Mtpa and over £234m at 13Mtpa.

### Local Payments

0.25 YPL would also pay local taxes and duties, including business rates and royalties to landowners, amounting to total of £27m in 2021 rising to £48m in 2024. There would be nearly £5m of additional business rates across the local authorities where the Project components are located (collected by the LEP in the case of the Materials Handling Facility).

## Sensitivity Tests

0.26 To take into account potential variations in the market price for polyhalite, and in the expenditure estimates to construct and operate the Project, the following sensitivity tests have been run:

- Price of polyhalite at \$110/t; \$150/t and \$170/t
- Operational and capital costs are +/- 25%

0.27 For all scenarios, the economic benefit remains substantial. Changing the polyhalite price by 13% (from \$150 to \$170) changes all the associated impacts by 13%, except GVA which increases by 16% at 6.5Mtpa and 17% at 13Mtpa at a price of \$170/t. (Equally, a reduction in GVA greater than proportional to a reduction in sales price).

0.28 A 25% change in costs has a proportionate impact on indirect employment (i.e. if costs are 25% lower, indirect employment is also 25% lower). The impact on GVA is significantly less – a 25% reduction in costs increases GVA by 6.4% at 6.5Mtpa and 6.2% at 13Mtpa and vice versa.

0.29 A further sensitivity test has been undertaken on a polyhalite price of \$110 to demonstrate further the robustness of the benefit estimates at very low prices. Even at \$110/t the Project is viable and profitable such that it continues to deliver corporation tax revenues even at these levels.

## Potential Adverse Impacts

0.30 NYMNPA has raised concerns that the scheme could have an adverse effect on existing local businesses, particularly Cleveland Potash Ltd (CPL) and local tourist businesses.

0.31 Quod has assessed the potential for YPL to cause either product market or labour market displacement that could adversely affect CPL. This has been done in line with Government guidance.

0.32 As set out in the report by CRU, the global market for potash is very large. At peak production, YPL would account for only 3.3% of global K<sub>2</sub>O need or 2.8% of global demand for the nutrients in polyhalite. This leaves a significant global market that CPL would be able to sell into.

0.33 In terms of the domestic market, the potential effects are even smaller. YPL intends selling only 175,000 tonnes into the UK market at peak. At present the UK market is served by both CPL and exports. If YPL displaced both equally, the net effect would be to reduce YPL's gross benefits by 0.7% to a net benefit after displacement of 99.3%.

0.34 YPL's potential for labour market displacement is also limited. In order to reach 6.5Mtpa YPL will require only 210 workers (30% of its workforce) to have previous mining experience. There is an estimated mining and quarrying workforce of 2,370 within 60 minutes of the site, so YPL will require less than 10% of that. The remaining workforce will require more generic skills (eg administrative or HR tasks) that can be drawn from the wider labour market of nearly 300,000 workers. In order to reach 13Mtpa YPL will use a combination of on-the-job training and internal promotion to meet its expanded need for an experienced workforce.

0.35 Since the emergence of the YPL Project, CPL has stated publicly that it has a secured long-term future based on production of MOP and has announced its own plans to invest in polyhalite production. It therefore seems unlikely that CPL's production is vulnerable to impacts arising from YPL.

0.36 In terms of tourism, YPL has commissioned a survey from Ipsos MORI. This has identified the potential for small adverse impacts during the construction and operational phases. These equate to a loss of £10.3m per year during construction and £5.2m per year during operation - a loss of 3.4% during the construction phase and 1.7% during operations.

0.37 The conclusions of the survey are primarily based on comparing the change in respondents' attitudes to visiting the NYMNP before and after they had been given a description of the Project. However, the detailed assessment of key issues in the EIA (such as noise, landscape and visual and transport effects) suggests the actual significant impacts of the scheme are limited to some landscape and visual effects and disruption to a small number of walking and cycling routes during the construction period.

0.38 The likelihood that the survey is over-estimating impacts is supported by evidence from elsewhere. Measures of tourism employment in the National Park during the period of construction of the upgraded Fylingdales facility show that there was no decline over that period.

0.39 Even if the worst case scenario were to occur, the losses would be small compared to the benefits of the YPL scheme – around 150 jobs, compared to the 750 well-paid, full-time jobs within the Park at the mine itself. The loss of tourism activity at £5.2m during operation is insignificant in comparison to the £1.2bn of annual turnover generated by the Project.

## Delivering Local Benefits

0.40 Quod's assessment of the location of new jobs suggests that a significant proportion will be in a very local area around the scheme, both at

the mine and the materials handling and harbour facilities. Utilising a transport gravity model that factors in population and travel distance, over 12% of jobs are estimated to go to Scarborough residents, 45% to residents of Redcar and Cleveland and around a third to residents within the National Park.

0.41 It should be noted that this does not take account of YPL's Skills Strategy that will seek to increase the local benefits further, by increasing employment opportunities for local residents and young people throughout the TTWA, in particular. YPL has already begun to implement the strategy and has set a range of targets including 50 apprenticeship opportunities.

0.42 Alongside this is a Local Supply Chain Engagement Strategy that seeks to inform and prepare local businesses for contracting opportunities with the company and its main contractors. This would further increase local employment associated with the Project. Both of these documents are appended to this report.

0.43 YPL is aware that NYMNPA is concerned about the potential for greater adverse impacts than those currently assessed. As a result it is proposing Section 106 contributions to support tourism promotion and investment in the Esk Valley railway that would allow a doubling of services which would also have a positive effect on tourism.

0.44 York Potash has also established a charitable Foundation to allow for wider community benefits funded by an annual royalty of 0.5% of the Project's revenue.

## Conclusion

0.45 The benefits would be strongly felt within York North Yorkshire and East Riding and Tees Valley LEP areas but would be of a significant magnitude and reach to have national effects, especially with respect to exports and the trade deficit. Collectively, these impacts demonstrate that the York Potash Project would make a large and lasting contribution to meeting national need and core local and national policy objectives.

# 01 INTRODUCTION

1.1 This report sets out Quod’s assessment of the economic impacts of the York Potash Project. It forms part of York Potash Ltd’s (YPL’s) evidence base that supports the planning applications for a polyhalite Mine and related mineral transport and handling facilities, including a Harbour Facility on Teesside.

1.2 The report sits alongside a number of other documents that collectively demonstrate how the proposed scheme complies with planning policy and, in particular, focuses on how the Project as a whole contributes to meeting policy objectives and generates benefits of national importance. It also addresses potential adverse effects the Project, in particular with respect to tourism and presents a summary of initiatives to which YP commits in order to deliver and maximise local benefits. Socio-economic assessments of individual components of the Project are included in their respective Environmental Statement Chapters and further assessments will provide disaggregation to different spatial scales.

1.3 The Mine is located at Dove’s Nest Farm and Haxby Plantation in the North York Moors National Park (NYMNP) and is to be connected to the Harbour Facility and Materials Handling Facility (MHF) by an underground Mineral Transport System (MTS). Together, these will deliver and/or make a significant contribution to higher employment (direct, indirect and induced), higher economic output, an increase in exports, UK tax revenues, and local payments such as royalties, both during construction and for the duration of mining operations. These will be accompanied by a range of other benefits such as wages going into the local economy and potential falls in unemployment, which will all make a contribution towards boosting the economy both nationally and locally.

1.4 The development will bring significant national benefits and contribute to the Government’s core economic objectives of significantly increasing economic growth, rebalancing the economy, increasing exports, achieving Full Employment and reducing the deficit.

1.5 The York Potash Project will contribute to all these objectives and in particular to the aim of re-balancing the economy.

1.6 The Government is aiming to achieve a significant rebalancing of the economy in three ways. Firstly, it is seeking to rebalance away from the public sector and towards the private sector. Secondly, it is seeking to rebalance away from services and consumption towards production and, in particular, investment and exports. Thirdly, it is seeking to rebalance away from London and the South-East and encourage faster economic and employment growth in the Midlands and North.

1.7 The scale of the challenge is clear. Last year, the UK’s trade deficit was £27bn or just over £2bn per month – that is, we imported £27bn worth of goods more than we exported with more money going out of the country on traded goods than was coming in.

1.8 More recently, the Chancellor has announced a new policy aim for the UK to achieve Full Employment, which he defines as the highest employment rate in the G7 groups of nations. Achieving this will mean raising the UK’s employment rate to 73%. The current employment rate in the area around the Project is approximately 67% in the Boroughs of Redcar and Cleveland and Scarborough and also across the North York Moors National Park’s (NYMNP) travel to work area<sup>1</sup>.

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<sup>1</sup> As defined by ONS in 2001

1.9 This report sets out the scale of the Project's contribution to meeting both local priorities and national Government's policy objectives. Section 2 sets out this policy context.

1.10 Section 3 sets out the key assumptions on which the assessment is based, with the scale of benefits depending on the level of investment from YPL in the construction of the Project, and the subsequent level of output and the price at which polyhalite can be sold when the Project is operational.

1.11 The subsequent sections set out the impacts during the construction and operational phases on employment, the supply chain, and key economic indicators such as GDP, exports, unemployment and tax contributions. Section 8 sets out the potential adverse impacts, relating to tourism in particular. Section 9 sets out YPL's initiatives to maximise local benefits.

1.12 This assessment has been undertaken by Quod with input from YPL and in line with a socio-economic scoping report (Technical Note 1) and advice from the North York Moors National Park Authority (NYMNP)<sup>2</sup>. It assesses the impacts arising from the investment required to achieve an initial production of 6.5 million tonnes per annum (Mtpa) in 2021, with further investment that would increase production to 13Mtpa by 2024.

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<sup>2</sup> NB This report does not seek to address all issues included in scoping – disaggregation by component and spatial scale will be undertaken for the Environmental Statements

## 02 POLICY CONTEXT

2.1 The Government's policies supporting economic growth are set out in a range of policy documents, including the Local Growth White Paper (BIS, 2010), the BIS and HM Treasury Business Plans 2012-15 (BIS & HMT, 2012), Autumn Statement 2013 - Reducing the Deficit and Rebalancing the Economy (HMT, 2013), and the Plan for Growth (BIS & HMT, 2011). They also underpin the National Planning Policy Framework (NPPF).

2.2 The NPPF<sup>1</sup> sets out the Government's national planning policy. It reinforces the Government's commitment to securing economic growth and was introduced to help ensure that the planning system does everything it can to support rather than impede sustainable economic growth. The NPPF is underpinned by an overarching presumption in favour of sustainable development (Paragraph 14).

2.3 Paragraph 7 of the NPPF defines the three roles of sustainable development as economic, social and environmental. The economic role is singled out for particular weight. *"The Government is committed to ensuring that the planning system does everything it can to support sustainable economic growth. Planning should encourage and not act as an impediment to sustainable growth, and as such, significant weight should be placed on the need to support economic growth through the planning system"* (paragraph 19). Sustainable economic development means building a strong, responsive and competitive economy, ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and identifying and coordinating development requirements.

2.4 As part of their commitment to building strong and sustainable economies, local planning authorities should have a clear understanding of business needs within the economic markets operating in and across their area and they should *"work closely with the business community to understand their changing needs and identify and address barriers to investment"* (Paragraph 106). Minerals are considered to be essential to support sustainable economic growth and our quality of life. The NPPF includes a list of *"minerals which are necessary to meet society's needs"*, which includes potash.

2.5 Although the protection of national parks is given significant weight, planning permission can be given to major developments in these areas where it can be demonstrated that they are in the public interest. In exceptional circumstances, development in national parks can be in the public interest taking into account:

- *"The need for the development, including in terms of any national considerations (see below), 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, including the landscape and recreational opportunities, and the extent to which that could be moderated."*

<sup>1</sup> Department for Communities and Local Government. March 2012. National Planning Policy Framework (NPPF). London. TSO.

2.6 The “national considerations” referred to in Paragraph 116 of the NPPF are not specifically referenced, i.e. they refer broadly to the contemporary national policy priorities. Current national policy priorities are set out in a range of government policies and statements including those set out in Paragraph 2.1., above. In addition to reducing the deficit, the over-arching theme of these policies is a focus on the national importance of growth, which includes:

- Rebalancing away from the public sector and towards the private sector;
- Rebalancing away from services and consumption towards production and in particular investment and exports;
- Rebalancing away from London and the South-East and encouraging faster economic and employment growth in the Midlands and North.

2.7 The Local Growth White Paper, published in October 2010, sets out the Government’s approach to local growth “*shifting power away from central Government to local communities, citizens and independent providers*”. The Government seeks to spread growth across the UK by reforming and localising the planning system; setting in place a presumption in favour of development; empowering and supporting local growth through Enterprise Zones and associated benefits; and investing in the regions to support higher growth via the Regional Growth Fund. The Government commits to tackle “*market failures*” by, amongst other measures, “*encouraging foreign investment and indigenous companies to export, especially where we have the comparative advantage*” (Paragraph 4.1).

2.8 Growth should be broad-based, industrially and geographically (Paragraph 1.23); should create a business environment that competes with the best internationally (Paragraph 1.23); and should establish a sustainable and growing private sector, in particular in areas that are currently dependent on the public sector (Paragraph 4.5).

2.9 The Local Growth White Paper establishes Local Enterprise Partnerships as one of the key mechanisms for growth, linking local planning authorities and businesses in partnership to plan for - and work towards - sustainable local growth and encourage and direct inward investment. In response to this, the York, North Yorkshire and East Riding LEP (YNYER LEP) and the Tees Valley Unlimited LEP (TVU LEP) have been set up. These areas have the ability to apply for and manage central Government funding streams and benefit from tax incentives.

2.10 The stated objective of the YNYER LEP is to help businesses improve and grow to create good quality local jobs. York Potash is identified throughout their Strategic Economic Plan (SEP) as a major new economic opportunity providing direct employment and skills development. The YNYER LEP supports the proposed potash Mine near Whitby as a generator of exports, employment, supply chain opportunities and a source of innovation (page 17). The potential multi-billion potash development is supported for creating supply chain opportunities across both the YNYER LEP area and the TVU LEP area. The SEP states that it will collaborate with developers to ensure the potential of this opportunity is maximised.



2.11 The Tees Valley Unlimited Strategic Economic Plan sets out the objective to create and safeguard jobs and attract public and private sector to correct an imbalanced economy reliant on public sector employment and with far too few jobs per capita.

2.12 Rebalancing local economies in this way should enable the Treasury to reach its macroeconomic goals. These are set out in *The Plan for Growth*<sup>2</sup> which outlines strategies for economic growth including rebalancing the economy and increasing inward investment. The Government recognises the UK economy has suffered in the past decade becoming unbalanced and stagnated, seeing its international ranking in competitiveness falling (paragraph 1.1) as other nations reduced barriers to investment including decreasing tax rates, making their nations more attractive to businesses (paragraph 1.6). To rebalance, the Government has set out its ambition to create sustainable growth away from a reliance on a narrow range of sectors and regions with an economy built on investment and exports and success shared across all regions (paragraph 1.39).

2.13 The Government is looking to increase private sector employment focused on regions outside of London and South East to ensure that benefits are felt across the country. Actions include investment in the private sector with the Regional Growth Fund (paragraph 1.50). The Chancellor is instigating reforms of the tax and benefits systems aimed at building a resilient economy which supports Full Employment<sup>3</sup> with the target

of becoming the country in the G7 with the highest employment rate (73%).

2.14 Increased exports are a key step in achieving sustainable and balanced growth in the UK and there are huge opportunities, with the UK well positioned between the USA and the rest of Europe to take advantage of export opportunities (paragraph 1.42) as well as creating new links with emerging markets.

2.15 The Government is seeking to become a world leader in agricultural technology, innovation and sustainability as set out in its Strategy for Agricultural Technologies (HMG, 2013). The UK is well positioned to make an impact on the global agricultural markets through exports of products, science and farming practices, and to open up new global markets for UK leadership in agri-tech innovation (Page 8). The Government's aim is to exploit opportunities to develop and adopt new and existing technologies, products and services to increase productivity; and contribute to global food security and international development. The activities of YPL would make a significant and positive contribution these aims, especially with respect to both exports and innovation.

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2 HM Treasury and Department for Business Innovation & Skills. 2011. *The Plan for Growth*. TSO. London. HM Treasury and Department for Business Innovation & Skills. 2011. *The Plan for Growth*. TSO. London.

3 HM Treasury, George Osborne MP. 2014. Chancellor Speaks on

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Tax and Benefits. <https://www.gov.uk/government/speeches/chancellor-speaks-on-tax-and-benefits>. Accessed 02.04.14

2.16 A full policy review, including local policy, is set out in the Socio-Economic Chapters of the ES.

2.17 At a local level NYMNPA has a range of policies encouraging employment growth, subject to environmental constraints. It's Core Strategy and Development Policies (CSDP) document recognises the employment opportunities that are offered by a small number of larger organisations such as the Boulby Potash mine and RAF Fylingdales. (Paragraph 8.3). It also recognises that the NYMNPA has a duty to foster the economic and social well-being of local communities and therefore will encourage and promote opportunities for new employment, training and enterprise in the Park.

2.18 Core Policy A states that priority will be given to: "Providing a scale of development and level of activity that will not have an unacceptable impact on the wider landscape or the quiet enjoyment, peace and tranquillity of the Park, nor detract from the quality of life of local residents or the experience of visitors..."

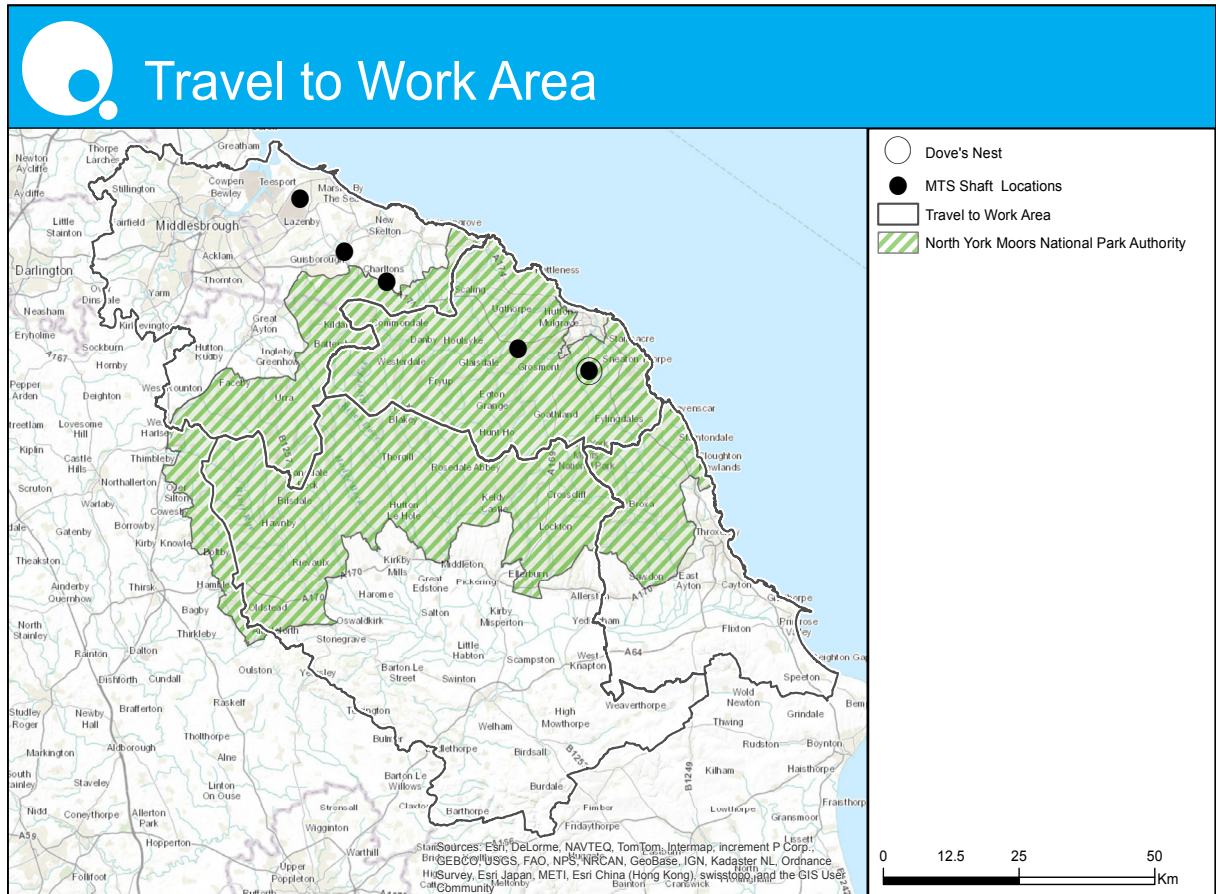
2.19 Scarborough's most recent strategic document, the Core Strategy Preferred Options (2009), sets out an emerging strategy for development in the Borough to 2026. It highlights the challenges currently facing the borough including structural problems with the local economy and the need to continue to attract both public and private sector investment. There is also recognition within the document that the Borough experiences 'hot spots' of deprivation including some wards within the top 10% most deprived in England. The document sets out that there has been historic dependence upon the coastal economy – particularly fishing and tourism. Both of these industries have been subject to long-term decline.

2.20 Redcar and Cleveland has a more up to date plan, with a draft published in December 2013. That acknowledges the key issue of economic decline and the increase in out-migration as the population searches for employment opportunities. It includes a Regeneration Masterplan, that outlines a 15 year plan for the social, economic and physical development of the borough. This sets out a vision to create 14,000 new jobs, support and help create over 800 businesses and secure £1bn of private and £265 million of public sector investment in the borough over the next fifteen years.

# 03 BASELINE

3.1 Whilst the Mine at the Dove’s Nest Site is in a mainly rural area, it is close to some urban areas and as a result there is a large population within a the travel-to-work area (TTWA) of the NYMNP. This TTWA is shown on the following map. The TTWA will serve as the labour pool for the Project as a whole. The TTWA is derived from ONS travel to work statistics, using their official methodology.

FIGURE 1. Travel to Work Area



3.2 The zone covers part of a number of administrative areas – several local authorities, the Tees Valley Unlimited (TVU) and York, North Yorkshire and East Riding (YNYER) Local Enterprise Partnerships (LEPs) as well as the North York Moors National Park Authority (NYMNP) area.

3.3 This section sets out key demographic data for those areas, drawing on the relevant authorities’ own work as well as ONS datasets. More detail, including more technical analysis is contained in the socio-economic ES chapters.

## Deprivation

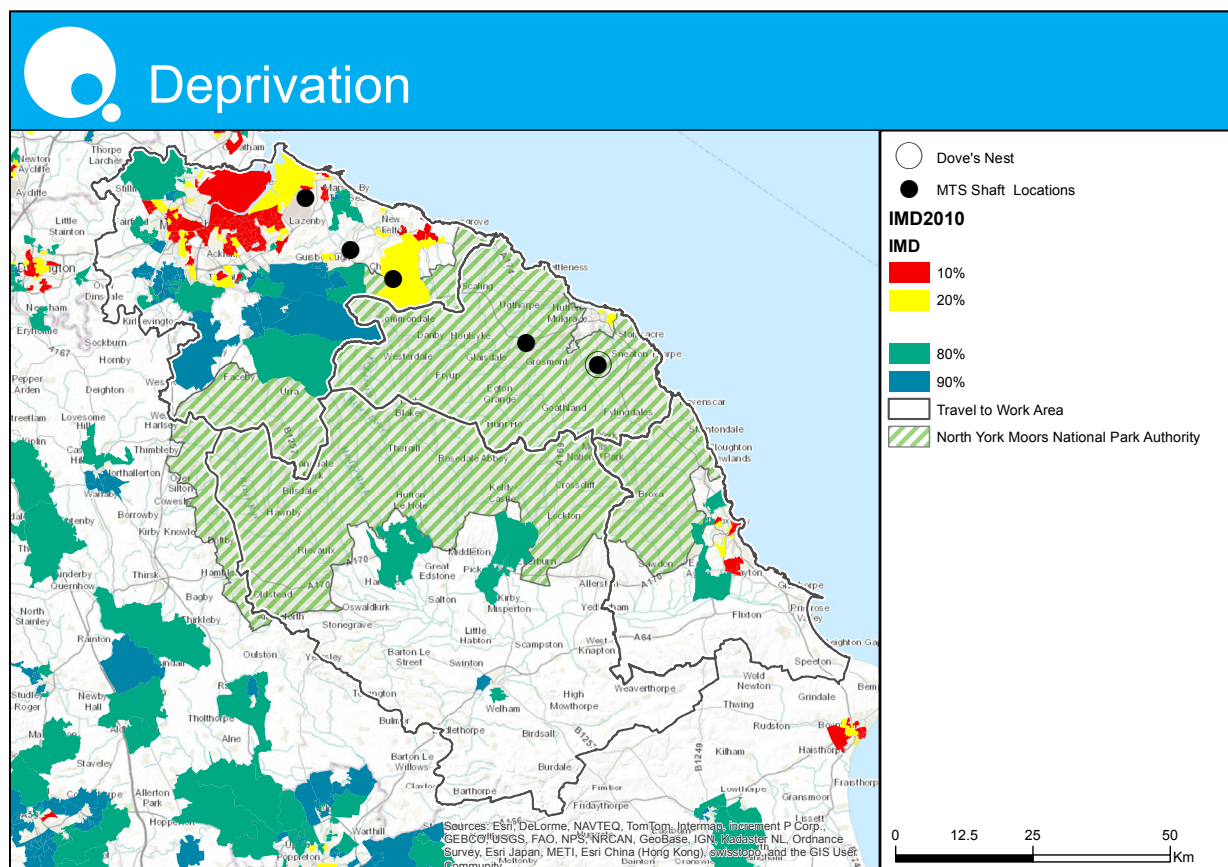
3.4 The TTWA contains areas of great contrast. There are significant areas which are extremely deprived and rank amongst the 10% and 20% most deprived in the country using the Government's Indices of Multiple Deprivation, as well as some of the wealthiest areas in the country. These are shown in the following map, where it can be seen that there is extensive deprivation in Teesside and pockets in Whitby and Scarborough.

## Population

3.5 The total population within the TTWA is just under 650,000. Within the NYMNP, the population has been declining (2.1% between 2001 and 2011) at a time when it has been growing elsewhere (5% in the YNYER LEP area and 8% in the UK) and ageing (the population of over 65s grew by 4.3% in the same period).

3.6 Looking forward, Scarborough's population is expected to grow by 2% from 2011 to 2021, which compares to no change in Redcar and Cleveland and 6% across the YNYER LEP. This compares to 9% for England and Wales. Population projections are not available at the NYMNP level.

FIGURE 2. Deprivation Across the TTWA



## Labour Market

3.7 The NYMNP area has 24,400 people of working age. Of these, 15,800 are economically active. The wider TTWA has 472,540 people of working age, of whom just over 295,000 are economically active. There is therefore a large pool of workers within commuting distance of the Mine site, where the majority of YPL staff would be based, and also the other elements of the scheme.

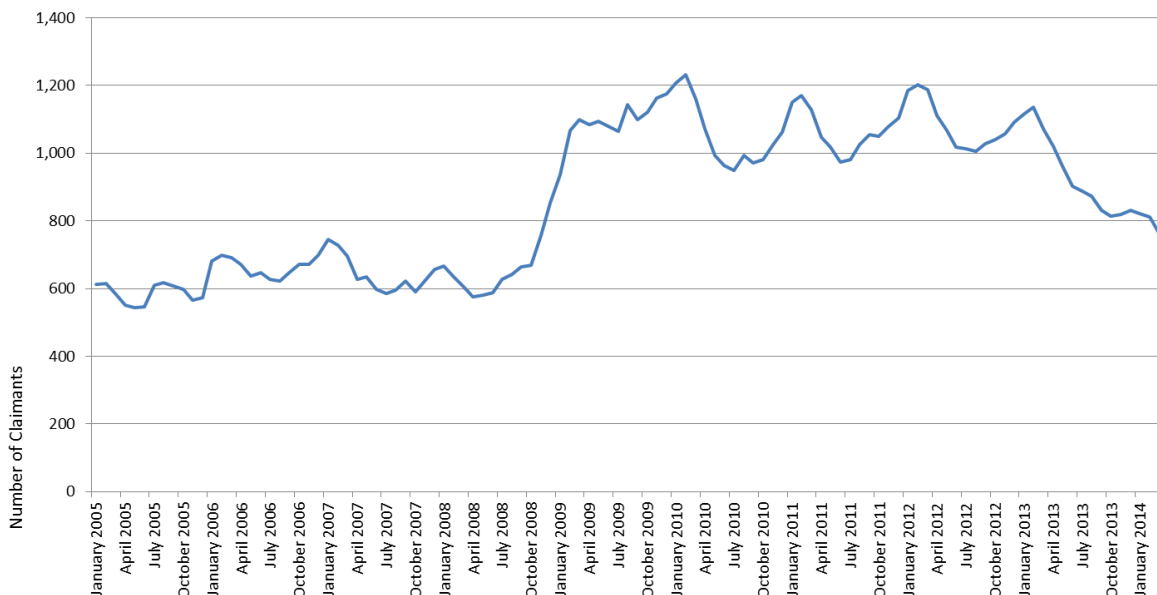
3.8 A key issue facing the area is the low level of full-time workers. The percentage of working age residents in full-time employment ranges from 29% in the National Park to 33% in the TTWA, and 31% and 34% in Scarborough and Redcar and Cleveland respectively. These figures compare with a figure of 38% for England and Wales and the LEP areas and 37% for the Yorkshire and Humber and North-East regions. Job density – that is employment (BRES) per resident aged 16-64 – is particularly low in the region. The average across England and Wales is 0.70 jobs per working age resident, whilst in the TTWA it is 0.61; 0.61 in the TV LEP, 0.66 in the YNYER LEP and as low as 0.47 in Redcar and Cleveland. Within NYMNP wards, it is approximately 0.60.

3.9 Alongside this, the employment rate in some of these areas is also quite low, and well below the Government’s target of 73% for Full Employment. Whilst the National Park itself is slightly above target at 75%, in the wider TTWA and in Scarborough the rate is only 67%.

3.10 The corollary of this is relatively high unemployment and worklessness. There are not enough jobs in the area to enable it to prosper. Again, the Park itself performs well with an unemployment rate of 1.9%, but in the TTWA it is 4.7%, in Scarborough it is 3.8% and in Redcar and Cleveland it is 5.3%. These are all significantly higher than the 3% seen across England and Wales. When considering all out of work benefits, Redcar and Cleveland’s proportion of claimants is almost 50% above the national average at 19.7%. Scarborough and the wider TTWA are also well above average at 15.5% and 17.6% respectively.

3.11 This is compounded by the seasonal nature of much of the work in the area which means that the peak of unemployment in February is significantly higher than the trough in June.

FIGURE 3. Seasonal Unemployment



3.12 Wages in the areas around the Project vary according to location and between residents and workers. According to ONS Annual Survey of Hours and Earning (ASHE) data, resident based wages in Redcar and Cleveland are significantly lower than the average for the LEP and England and Wales, although higher than workplace wages. This indicates that residents with higher earning jobs travel out of the district to work. Jobs within Scarborough Borough have the lowest average wages of all the areas locally. There is no comparable wage estimate specifically for the NYMNP, although an estimate from 2005 places it at £20,280 compared to £21,514, a contemporary estimate of the regional annual wage (Y&H).<sup>1</sup>

## Economic Sectors

3.13 The labour market performance of the area is to some extent a function of its economic structure.

3.14 The NYMNP area (as well as North Yorkshire more generally) has a significant proportion of its employment in seasonal sectors such as agriculture and tourism. It also has high levels of public sector employment, including in the defence sector.

3.15 The YNYER LEP's Strategic Economic Plan measures the dependence on key sectors using "Location Quotients" (LQs). The Plan states that, "The agriculture, forestry and fishing sector stands out as having by far the highest LQ across the LEP area, with three and a half times as many businesses in the sector as would be expected based on national average. For the Moors & Wolds (within the NYMNP) and Dales areas that figure is notably higher at around five or even six times national average." It goes on to say, "Public administration and defence also has a high LQ at 2.1 across the LEP area, which presents some risks given a declining public sector."

3.16 In terms of tourism it states, "No one industry sector describes tourism related activities explicitly, but the accommodation and food services sector provides a reasonable proxy. This has an LQ of 1.3 across the LEP area, showing it is above national average but not considerably so. This figure is fairly consistent across the LEP area except in York where it rises to 1.5, and in Scarborough where it is 2.5. That illustrates the importance of the sector to the Yorkshire Coast." It is also high within the NYMNP area, with 18% of employment in accommodation and food services, compared to 8% in the wider TTWA.

3.17 The Plan states that the area has "20% fewer medium and 50% fewer large businesses than the UK average" and "our start-up rate, measured as VAT registered businesses per 10,000 population, is 20% below the national average." Their conclusion is "we have a combination of older businesses and large numbers of micro businesses operating below the VAT threshold."

3.18 As a result of this, there are issues with output and productivity. The Plan states, "Growth and productivity are low and decreasing compared to national average."

3.19 The Tees Valley faces some challenges that are similar and some that are different. These are set out in the TVU LEP's Strategic Economic Plan. The plan states that its area also has relatively low productivity and, as set out above, relatively low employment rates and relatively few private sector firms and jobs. The level of public sector employment is 24%, compared to 19% nationally. However, it does have a successful manufacturing and engineering sector that is globally competitive and therefore contributes significantly to net exports. It is also less reliant on seasonal sectors such as agriculture and tourism.

<sup>1</sup> NYMNP, 2008, LDF: Adopted Core Strategy and Development Policies

3.20 Two of the key features that both areas share is that they are over-reliant on public sector employment which is vulnerable to spending cuts and they have relatively low productivity.

3.21 Across the TTWA there is significant existing activity in two sectors of direct relevance to the York Potash Project – construction and mining/quarrying. Just over 23,000 people are employed in construction and just under 2,700 in mining and quarrying within the TTWA. Within 1 hours' drive of the Mine, these figures are 17,540 and 2,370 respectively. This provides a significant pool of workers on which the Project could draw if necessary.

## The Tourism Sector

3.22 As set out above, tourism is a very important sector within the National Park and in the area immediately surrounding it. Employment in the sector has been reasonably stable over the last ten years according to a report on tourism in the National Park<sup>2</sup>. Accommodation is the largest sector, accounting for almost 30% of employment and over 25% of tourist spending. Next is shopping with 21% of jobs and 27% of spending, and then food and drink with 18% of jobs and 24% of spending.

3.23 Of the total revenue generated within NYMNP, 14% of revenue was generated from visitors staying in serviced accommodation; 28% from visitors staying in non-serviced accommodation, 56% from day visitors; and the remaining 2% from visitors staying with friends or relatives<sup>3</sup>.

3.24 NYMNP has a high proportion of regular repeat visitors with 50% of visitors having had a previous day trip or overnight stay or both to the park in the last 12 months<sup>4</sup>. Half of visitors have visited NYMNP last 12 months, 14% are first time visitors, 88% saying they are likely to return within 2 years<sup>5</sup>.

3.25 The 2012 North York Moors Management Plan states that there is evidence that the value of tourism to the local economy and the number of tourists and tourist days per annum has declined since 2007 and that efforts should be made to arrest this decline.

<sup>2</sup> Global Tourism Solutions (UK) Ltd, 2012. North York Moors National Park STEAM Report 2012

<sup>3</sup> Ibid.

<sup>4</sup> Qa Research for AMEC, 2013. York Potash Development – Impact on Tourism Research Report

<sup>5</sup> Welcome to Yorkshire, 'Yorkshire and Humber Regional Visitor Survey 2010/2011' (2011) quoted in Qa Research for AMEC, 2013. York Potash Development – Impact on Tourism Research Report

## Conclusions

3.26 The Dove's Nest site lies within the NYMNP, which is a relatively prosperous area. However, immediately around the Park there are significant areas of deprivation, including on Teesside and in Whitby and Scarborough. For example, at the other end of the MTS, the Harbour and associated Material Handling Facility are located within one of the most deprived parts of the country. The TTWA includes many of these areas.

3.27 The Park itself is very reliant on a small number of vulnerable sectors and, in common with the wider YNYER LEP area, has disproportionate amounts of employment in agriculture, tourism and public services. As a result, productivity and economic output are relatively low. There are also economic risks, with NYMNP's Management Plan noting that the value of tourism has been declining.

3.28 Whilst unemployment and economic inactivity are not significant problems within the Park itself, they are in the areas around the Park, where employment rates are significantly below the target of 73%. The TTWA as a whole has relatively low wages and low levels of full-time employment (both inside the park and outside). 42% of employees in Scarborough work in part time positions, compared to an average in England and Wales of 33%. In the TTWA as a whole, the average is 36%. Both resident and workplace income in all study areas are significantly below the median income for England and Wales. In Redcar & Cleveland and Scarborough, resident based annual pay is £24,100 and £23,900 respectively, compared to £27,200 nationally. The gap in workplace earning is slightly wider. Both Scarborough and Redcar & Cleveland's Councils are concerned with economic effects of out-migration of the young. Population projections indicate a stagnant or declining population of young and working age people with a high growth in over 75's<sup>6</sup>.

<sup>6</sup> ONS, 2012 based Sub National Population Projections



## 04 KEY ASSUMPTIONS

4.1 As set out in the Introduction to this report, the impacts of the scheme are a function of a number of components in both the construction and operation of the Project. This chapter sets out the key assumptions for both, and how they influence the overall economic impact assessment of the scheme. It starts with the assumptions about the market for polyhalite and then sets out the assumptions that underpin the assessment of construction and operational impacts.

### The Market for Polyhalite

4.2 The amount of polyhalite that YPL can sell will be a function of the price it charges. YPL has commissioned CRU Strategies, a leading independent consulting company with a core expertise in the fertiliser industry, to conduct an in-depth analyses on the global polyhalite demand and the influences of pricing on demand. The full report has been submitted as part of the supporting documents for the application. The report identifies the scope of the fertiliser markets for polyhalite, and the potential scale of the market depending on a range of price points per tonne of polyhalite.

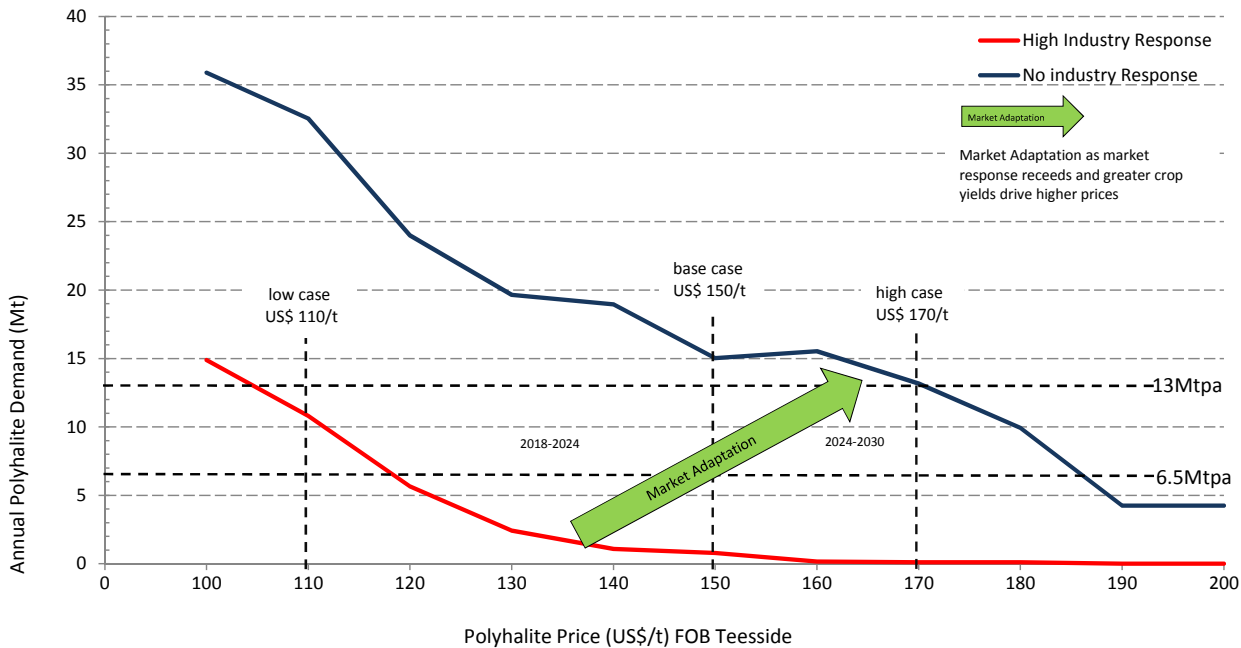
4.3 Polyhalite is not currently a commodity with an established quoted market price. CRU Strategies' assessment is therefore based on a component nutrient basis and allows for additional costs for transport to market and (where necessary) increased application costs owing to the need to apply higher volumes of materials. The pricing of polyhalite's component nutrients is based on the forecast price of a range of fertilisers and their component nutrients in 2018.

4.4 The CRU report then sets out a range of prices that might be sustained over the short to medium term as competitors respond to YPL's entry into the market. It also sets out what might happen to prices if the market accepts the evidence that polyhalite increases crop yields, relative to substitute products.

4.5 The CRU report identifies a "demand window" of prices and quantities for 2018 at which it forecasts YPL will be able to sell polyhalite. At the bottom of the window, prices are driven down by a strong response from competitors who may choose to cut prices to maintain their market share (a condition CRU believes is unlikely to exist in the long term). At the top of the window, it assumes there is no pricing response from competitors who choose to protect profit margins rather than volumes. This study predicts that there would be market capacity to absorb YPL's production at 6.5Mtpa and 13Mtpa at prices ranging from \$110 to \$170. The range between the no industry response scenario and high industry response scenario illustrates the two possible extremes of industry reactions, and hence show the entire spectrum of polyhalite demand variation. CRU believes that the actual price will sit somewhere between the two scenarios.

4.6 The report is not specific about the improvement to crop yields that polyhalite might deliver, but it estimates the extent to which any profit from additional yields could translate into higher polyhalite prices. The effect of this is to move the demand curve for polyhalite outwards so that any given volume can be sold for a higher price.

FIGURE 4. Polyhalite Demand Window, 2018, million tonnes



4.7 Figure 4 shows the demand window identified by CRU, together with the potential shift in the demand curve, identified by Quod, that a diminishing industry response and/or increased yields would deliver.

4.8 The CRU demand window demonstrates that there is a large market for polyhalite at prices that would be profitable for YPL to supply. YPL believes this would therefore relatively quickly justify the investment to facilitate production of 13Mtpa.

4.9 In the short-term, if the market does respond aggressively, the floor-price for polyhalite would be just under \$110 per tonne - at \$110 CRU estimates that YPL could sell 11Mtpa, even under the largest industry response. At the extreme end of the no industry response YPL could sell 32Mtpa at \$110.

4.10 CRU Strategies does not believe that an aggressive industry response could be sustained, so beyond a period of 12 to 18 months the industry response would weaken and prices would increase. Therefore by the assessment year of 2021 a floor price of \$110 is considered to be cautious, with the likely price being higher. CRU Strategies points out that the high industry response scenario is highly unlikely as it means that all prices will be reduced to the point which all the global incumbent suppliers are only achieving prices of the marginal cost of production.

4.11 In addition to the weakening of the market response, over time the evidence already apparent from crop trials and use in the field can be expected to generate acceptance of likely increased yields and strengthen the demand for polyhalite. YPL has commissioned a range of crop trials that continue to demonstrate that polyhalite does improve yields. The results of these trials, and an expert view of the potential for the widespread commercial use of polyhalite, are set out in the report by ADAS that has been submitted as part of the supporting documents for the planning application.

4.12 The ADAS report, *The Agronomic Case for Polyhalite*, which has been peer reviewed by a panel of experts, states that “*Polyhalite is a valuable source of major plant available nutrients (i.e. potash, sulphur and magnesium) that can be used to produce multi-nutrient fertiliser products or as a straight product [...]The world market for potash, sulphur, magnesium and calcium fertiliser products will continue to expand, because of the need to increase food production...’*”. The report agrees with the principle that polyhalite is an effective source of the key nutrients for plant growth and that a market for these nutrients both exists now and is expected to grow in the future.

4.13 This, underpinned by successful marketing, would push the demand curve out so that a higher price could be charged for any given volume.

4.14 This assessment of economic benefits has therefore been undertaken on the basis of an average price for polyhalite of \$150/t (£94) with YPL selling 6.5Mtpa in 2021 and 13Mtpa in 2024. This is consistent with YPL’s current marketing and the 5Mtpa that is already subject to off-take agreements, memoranda of understanding and framework sales agreements.

4.15 To account for any uncertainty around pricing, sensitivity tests have been run at \$110/t, \$150/t and \$170/t.

## Construction

4.16 The construction impacts arise as a result of the investment by YPL. The level of that investment and how it is spent determines the scale and nature of the impacts.

4.17 YPL intends to make two stages of investment. The first stage will allow an initial production of 6.5Mtpa and construction will last 58 months. Production will commence in 2018, before construction is fully completed; thus there will be an overlap where production has begun and construction continues. Output will be ramped up from 2018 to 2021 when it will reach 6.5Mtpa, and 2024 when it will reach 13mtpa. Nonetheless, the first stage is by far the largest part of the investment and involves the sinking of the Mine shafts and the construction of the three associated developments – the Mineral Transport System (MTS), the Material Handling Facility (MHF) and the Harbour Facility.

4.18 The total cost to install a 6.5Mtpa capacity is estimated at £1.4bn and the broad split between the components is as follows:

Table 1: Proportion of Expenditure by Component (6.5Mtpa)

Scheme Component	Proportion of Construction Expenditure
Mine	44%
Mineral Transport System	31%
Material Handling Facility	14%
Harbour Facility	5%
Power and Utilities	6%

4.19 The cost of these elements has been estimated primarily through a Preliminary Feasibility Study (PFS). Further details on the cost assumptions of the PFS and further study of the MTS are set out in the Appendix to this report, *Key Business Assumptions*.

4.20 YPL intends to make a further investment of over £306m to install the equipment and infrastructure in order to increase production from 6.5Mtpa to 13Mtpa. This investment is expected to take place by 2024 and is broken down in the table below:

Table 2: Proportion of Expenditure by Component (Expansion to 13Mtpa)

Scheme Component	Proportion of Construction Expenditure
Mine	45%
Infrastructure	55%

4.21 The impacts that arise from that investment will create employment both directly with construction contractors, and elsewhere through the supply chain.

4.22 YPL has reviewed its workforce requirements for the construction phase of all four components. This has been informed by input from specialist engineering consultancies and construction contractors, and also reflects the changes to the scheme that have been made over the last year, including the Mineral Transport System (MTS). The workforce numbers are therefore based on a bottom-up assessment of what is required and provide the best estimate to underpin the assessment of likely impacts.

4.23 To reach 6.5Mtpa, YPL estimates that the Project as a whole will require 3,725 person-years of construction spread over 58 months – an average of 770 workers per year over the time period, with a peak of 1,670. The detail on the workforce assumptions has been provided in Technical Note 2: Construction and Operational Workforce Profiles. To reach 13Mtpa, a further 360 person-years of construction would be required over 19 months, peaking at 380 workers with an average of 230 workers per year.

4.24 In addition to direct employment, construction expenditure will create further indirect jobs elsewhere in the supply chain. YPL has produced an estimate of how construction expenditure will be split between a range of Standard Industrial Classifications, including construction (64%), manufactured machinery (20%), power, transport and other utilities (10%) and on business and financial services (6%). Quod has applied standard ONS estimates of output per worker in each sector to turn that spending into an estimate of indirect jobs.

4.25 A further multiplier has been applied to calculate the induced employment arising from spending by workers employed directly and indirectly by the Project (see Paragraph 5.8 for details).

## Operation

4.26 The impacts that arise from the operational phase are determined by the amount of polyhalite that YPL extracts and the price at which it can sell any given volume, as well as expenditure by YPL on the goods and services necessary for the operation of the Project.

4.27 As with the construction workforce, YPL has reviewed its operational workforce requirements to identify the number and occupation of workers required to produce the initial production volume of 6.5Mtpa and the total production of 13Mtpa. Again this is set out in Technical Note 2: Construction and Operational Workforce Profiles.

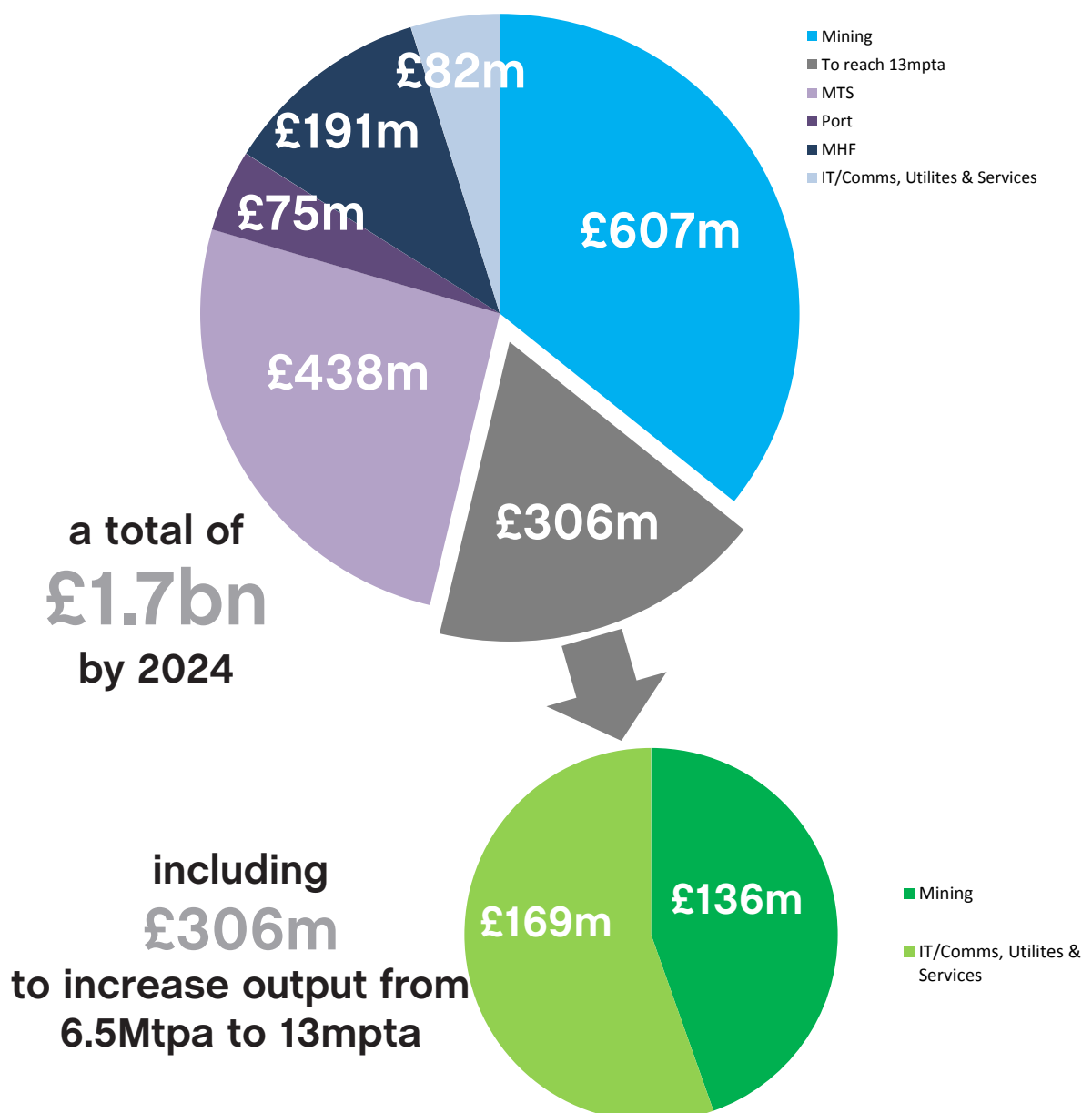
4.28 YPL has also produced an estimate of labour and non-labour costs and expenditure for the operational period. Again, the purchases from the supply chain have been estimated using Standard Industrial Classifications, with just over 55% spent on manufacturing products and services, just under 40% on power, transport and utilities and the remainder on business services and administrative costs. For the operational phase, the same output-per-worker assumptions have been used as for the construction phase.

# 05 CONSTRUCTION IMPACTS

5.1 YPL is proposing an investment of nearly £1.7bn to reach a potential output of 13Mtpa. The initial phase of investment involves spending just under £1.4bn across the Project as a whole, to reach a production capacity of 6.5Mtpa. Just under half of this will be spent on the Mine, with the MTS costing

£438m, the Harbour Facility and processing facilities a further £266m and other infrastructure another £82m. A further £306m will be invested to install the equipment and infrastructure in order to ramp up the production capacity from 6.5Mtpa to 13Mtpa, bringing YPL's total investment to just under £1.7bn.

FIGURE 5. Total Construction Expenditure by Component



## Direct Employment Impacts

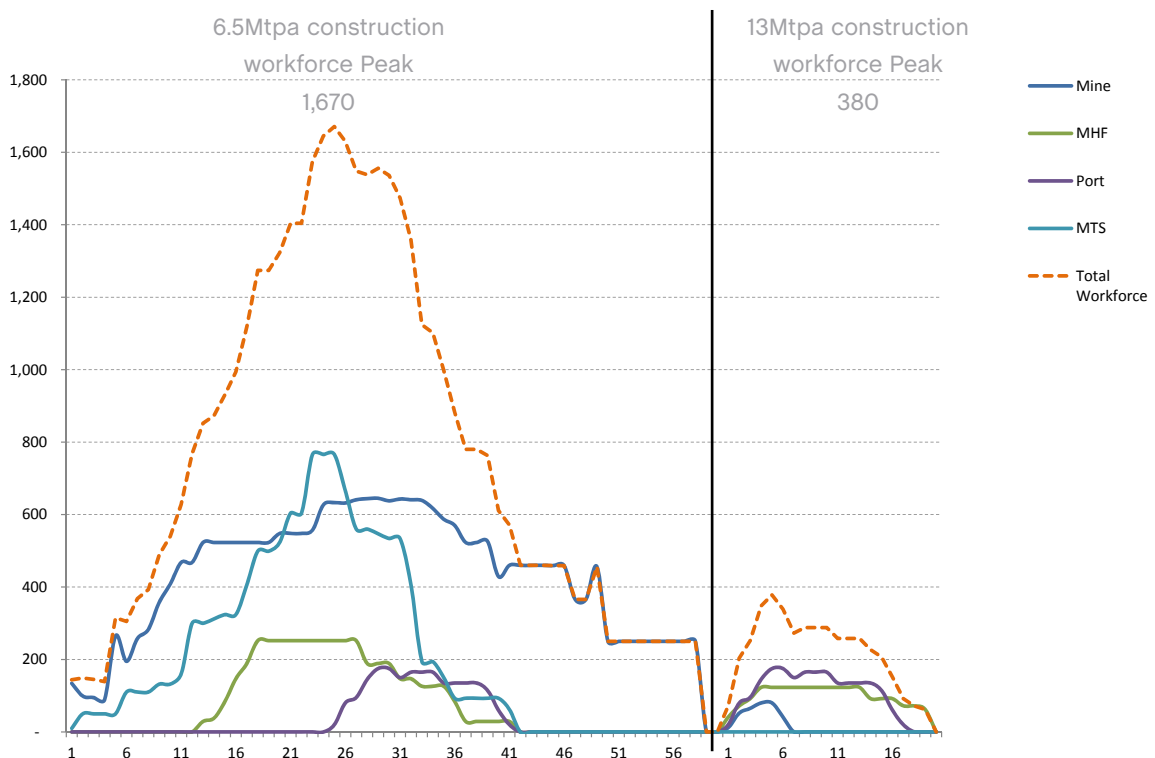
5.2 The initial construction period – scheduled to last for 58 months – will support over 3,725 person-years of construction. By accounting convention, the number of one-year construction jobs is divided by ten to provide a full-time equivalent. However, the number obtained would not give a meaningful representation of the number of people who would work on-site at any one time or over the construction period. Therefore the most relevant numbers in this case are the peak number of employees on-site and the average over the course of the construction. Some individuals would be on-site for a short period – weeks or months – whilst others might be on-site for the majority of the construction period, such as shaft sinkers. There would be an average of 770 jobs each year over

58 months, with employment peaking across the Project as a whole at over 1,670. The investment to increase capacity from 6.5Mtpa to 13Mtpa will last around just under two years and support an average of 230 jobs with a peak of 380. This is shown in Figure 6.

## Indirect Employment Impacts

5.3 As well as the direct benefits of the scheme, there will be multiplier effects through construction expenditure by York Potash directly and by its workers. Spending by YPL on the materials and services required for construction will increase employment across the supply chain. That will, in turn, support the creation of new jobs at suppliers and those new jobs will in turn mean more wages and more spending by those workers. These are called indirect impacts.

FIGURE 6. Construction Workforce



5.4 Similarly, the additional workers on the Project will spend some of their increase in income and thereby increase employment in local shops and services. In some cases workers will move directly from unemployment to working on the Project. In other cases they will move from existing jobs, thereby creating vacancies that other residents can fill. The overall result is that more people will have a job and there will be an overall increase in wages and in spending. This spending will then support more employment and economic activity at other local businesses. These are induced impacts. Figure 4 overleaf illustrates this process.

5.5 Set against multiplier effects are deadweight and displacement which can reduce net benefits, although during the construction phase both of these are zero. Without the scheme, there would be no construction employment taking place on the site so all the construction employment is additional to what would otherwise take place on-site in the absence of the proposed scheme. Similarly, the construction of a Mine at Dove's Nest is not displacing the construction of a mine elsewhere so again all the construction employment is additional to what would otherwise take place elsewhere in the economy.

5.6 Leakage has not been directly assessed as YPL is not undertaking a Green Book Appraisal. Leakage is implicitly assessed when estimating local impacts.

5.6 Indirect employment has been estimated using a breakdown of construction spending provided by YPL and drawing on the ONS Input-Output tables. These show that 60% of construction expenditure goes on materials and other parts of the supply chain – the remaining 40% is the “value added”, which is dealt with later in this report. The majority of supply chain expenditure (nearly 65%)

will remain within the construction sector with a further 20% going to the manufacturing sector and the remainder split between energy and business and financial services.

5.7 Quod has applied typical turnover per worker figures<sup>1</sup> (e.g. approximately £200,000 for manufacturing and just over £100,000 for construction; £65,000 for business services and transport) to estimate how many jobs this additional supply chain spending would support, i.e. £200,000 of purchases from the manufacturing sector will support one job in that sector. Therefore, over the course of the construction Project, jobs will be supported in the wider supply chain, an impact which is most accurately represented in person years of employment. The total number of person years of employment created is then averaged by the number of construction years. This is summarised in the following table:

TABLE 3. Construction Spending Impacts

Impact	6.5Mtpa	Additional to reach 13mtpa	Total at 13Mtpa
Investment	£1.4bn	£306m	£1.7bn
Supply Chain Expenditure	£810m	£180m	£990m
of which:			
Construction	£520m	£110m	£630m
Manufacturing	£160m	£40m	£200m
Utilities & services	£130m	£30m	£160m
Indirect Jobs (one year)	6,760	1,490	8,250
Indirect Jobs (average per year)	1,400	940	-

<sup>1</sup> ONS, 2010, Annual Business Inquiry 2010



5.8 Induced employment has been estimated using forecasts of wages to calculate how much additional consumer spending might be supported after accounting for tax, national insurance, pensions and savings and loss of benefits. This has then been divided by an average retail and leisure spend per worker of £100,000 to calculate the induced employment<sup>2</sup>.

5.9 Table 4 summarises the likely construction employment. Construction employment is temporary and peripatetic and is therefore usually measured in terms of person years of employment i.e. the number of one year jobs.

TABLE 4. Construction Employment

	6.5Mtpa	Additional to reach 13mtpa	Total at 13Mtpa
Direct one-year jobs	3,725	360	4,085
Indirect one-year jobs	6,760	1,490	8,250
Induced one-year jobs	1,240	220	1,470

5.10 Figure 7 shows how investment would work through the economy to create direct, indirect and induced effects.

## GDP Impacts

5.11 The Project will directly boost the economic output of the area and the country as a whole. At a national level, this is measured through Gross Domestic Product (GDP). At a sub-national level it is measured using “Gross Value Added” (GVA) which is the difference between the value of a company’s or industry’s output and the cost of the non-labour inputs it uses.

5.12 As set out above, the ONS estimates that approximately 40% of spending on construction is “value added.” For a £1.7bn construction Project, the direct GVA would therefore be approximately £680m, £560m of which would relate to the initial phase of production at 6.5Mtpa.

5.13 For indirect impacts, GVA is calculated using the ONS Input-Output tables. These provide data on the proportion of sales value for any given industry that is accounted for by GVA. This ranges from just under 30% to over 50% across different industries. YPL has estimated the spending that will go to different industries and using the Input Output tables it is possible to say on average how much of that spending represents GVA. Indirect GVA is estimated at £380m for the whole construction phase, £312m of which relates to the initial investment.

5.14 For induced impacts we have used the average GVA per worker for Yorkshire and the Humber (YH) and applied that to the estimate of induced jobs. In YH GVA per workers is approximately £32,500 so one induced job equates to £32,500 of GVA<sup>3</sup>. The 1,470 induced jobs would generate £48m of GVA, of which £41m would relate to the initial investment to achieve production of 6.5Mtpa. This is set out in Figure 8 and Table 5.

<sup>2</sup> Ibid.

<sup>3</sup> European Statistics, accessed via <http://stats.oecd.org>

FIGURE 7. The Path of Indirect and Induced Effects

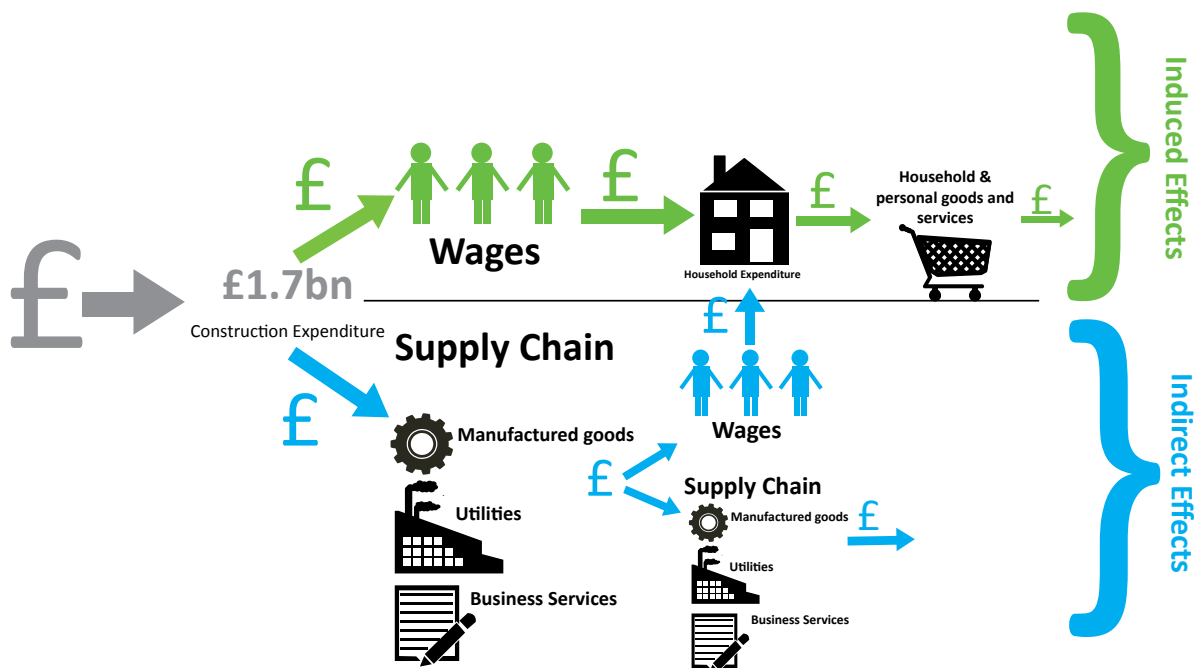


FIGURE 8. Construction GVA Impacts

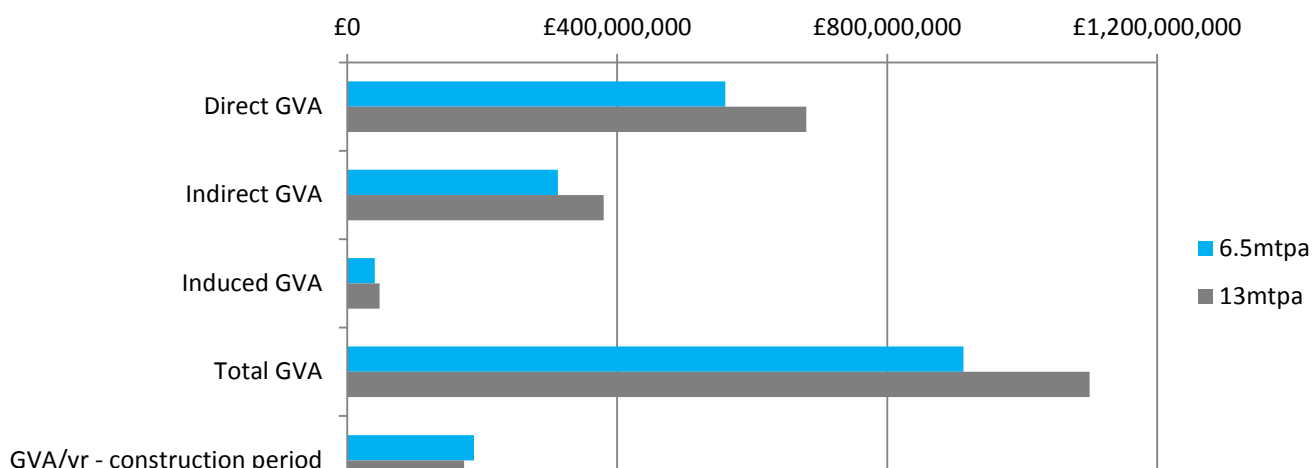


TABLE 5. Construction GVA Impacts

Impact	6.5Mtpa	Additional to reach 13mtpa	Total at 13Mtpa
Direct GVA	£560m	£120m	£680m
Indirect GVA	£312m	£68m	£380m
Induced GVA	£41m	£7m	£48m
Total GVA	£913m	£195m	£1.1bn
GVA per year over the construction period	£188m Over 4.8 years	£125m Over 1.6 years	£173m Over 6 years

### Tax

5.15 During the construction phase, the Government will collect income tax and national insurance from the workers' salaries (both direct and indirect). This would amount to £155.5m over 58 months for 6.5mtpa and a further £32m to reach 13mtpa; totalling £186.5m.

# 06 OPERATIONAL IMPACTS

6.1 The proposed scheme will create a range of ongoing economic benefits including new investment, employment and exports when production is underway. The scale of these is so substantial that the benefits will significantly boost the local, regional and national economies, and reduce the trade deficit, thereby contributing directly to achieving the Government’s key economic policies.

6.2 This section of the report sets out the economic benefits of the Project by focusing on the key indicators of investment, jobs, contribution to GDP, exports, tax and other additional local benefits.

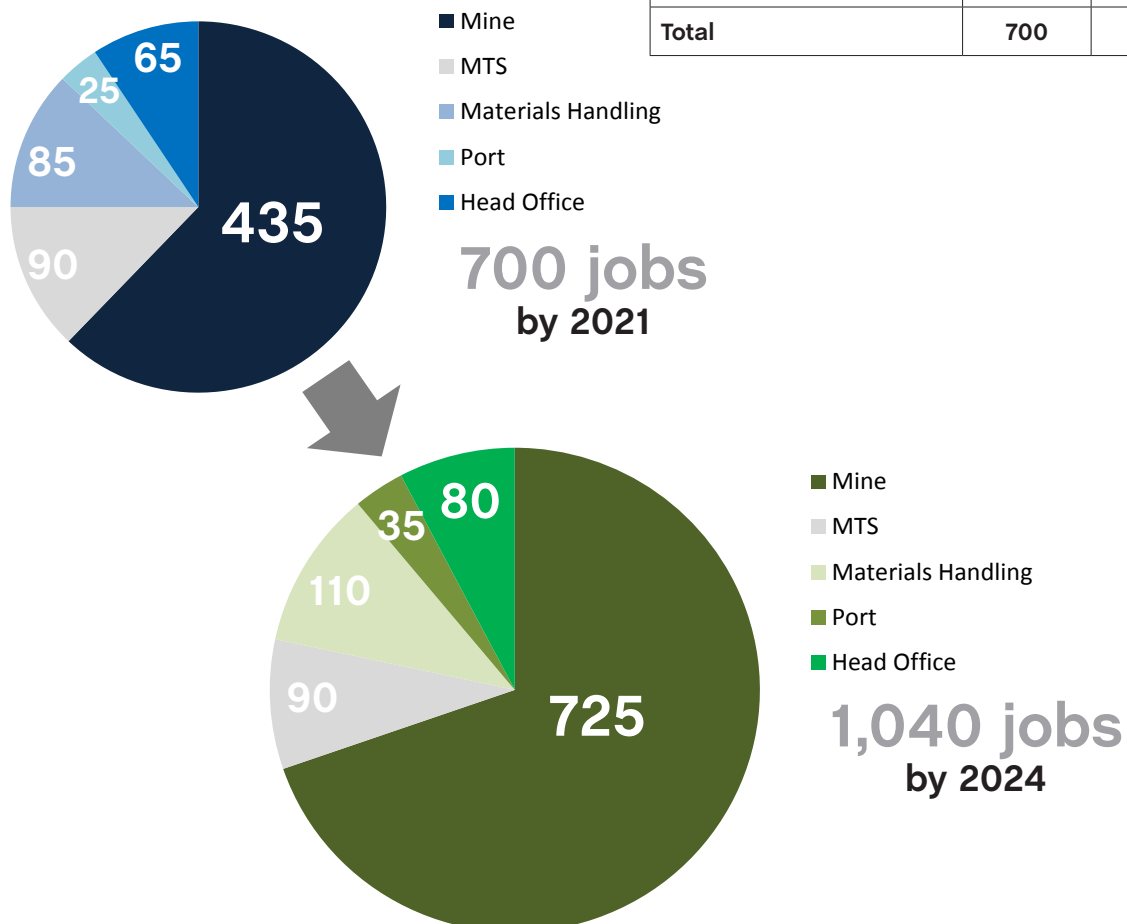
## Operational Employment

6.3 Table 6 and Figure 6 set out the operational workforce for the initial phase of up to 6.5Mtpa, and for the further phase up to 13Mtpa. This number represents the total number of people employed (i.e. headcount) however, as the vast majority (more than 95%) of jobs created will be full-time, this is close to an FTE number.

TABLE 6. Operational Employment

	6.5Mtpa	13Mtpa
Mine	435	725
MTS	90	90
Materials Handling	85	110
Harbour Facility	25	35
Head Office	65	80
<b>Total</b>	<b>700</b>	<b>1,040</b>

FIGURE 6. Operational Employment



6.4 These jobs will help achieve the Government's target of Full Employment. As set out above, the areas around the Project have employment rates below the Government's target of 73%. An additional 1,040 jobs within the NYMNP travel to work area could increase the employment rate by 0.25 percentage points.

6.5 Many of these will be well-paid jobs, with salaries significantly above the average for Yorkshire and the Humber and the North East of around £28,000. YPL has estimated the salaries for all the workers it needs to operate the Project. The total earnings of YPL's employees are estimated to be approximately £23m per annum at 6.5Mtpa and £35m per annum at 13Mtpa. This will provide a further boost to the economy in the form of additional household spending (see multiplier impacts below).

FIGURE 7. Wages

## Total wage generated:

**£23,000,000**

per year at 6.5mtpa

**£35,000,000**

per year at 13mtpa

6.6 Technical Note 2 sets out the detailed workforce requirements, including estimations of the skills-base required for operational employees during the construction phase. Recruitment will ramp up over a the initial years of operation, with opportunities for entry level jobs increasing with greater capacity for on-site training. Details about the YPL Skills Strategy are set out in Section 9.

6.7 As with the construction phase, there will be wider multiplier benefits during the operational phase as YPL spends money through its supply chain that supports jobs at other companies and as its employees spend their wages in the local economy.

6.8 Unlike in the construction phase there may be limited deadweight and displacement. There is currently no economic activity at Dove's Nest Farm, so there would be no displacement or deadweight at the Mine site. However, there could be some product market displacement that could affect other UK producers of potash. In the global market this would not be significant – YPL's production would be a small part of a very large global market (this is addressed in more detail in Section 8.)

6.9 To estimate the positive multiplier effects, Quod has reviewed YPL's spending plans. They estimate they will be spending £112m on their supply chain at 6.5Mtpa in 2021, rising to £214m at full production in 2024. Just over half of this (53%) is spent on manufacturing, 41% on utilities, and 6% on other business services.

6.10 The same levels of spending per worker have been assumed for these industries as for the construction phase (i.e. £620,000 for utilities; approximately £200,000 for manufacturing; £65,000 for business services so again £200,000 spent on manufacturing goods would support one additional job).

6.11 Spending by YPL will therefore support a further 880 indirect jobs at full production (see table below).

6.12 YPL's employees (as well as those additional ones in the supply chain) will also have more money to spend. YPL workers' wages will total an annual £35m at 13Mtpa. Assuming conservatively that the 890 indirect employees earn the average wage for Yorkshire and Humber of just over £28,000, this means a further £25.1m in wages. This is not all additional income so an allowance has been made for taxes, savings, and loss of benefits before dividing that by the average retail and leisure spend required to support one job of £100,000.

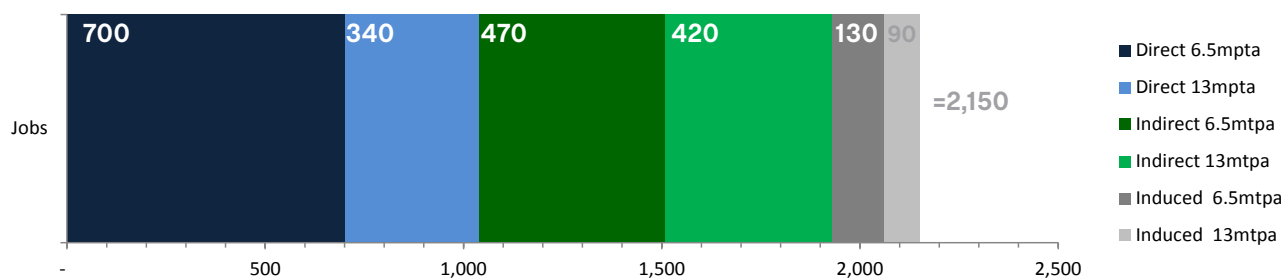
6.13 The employment impacts are summarised in the following table:

TABLE 7. Indirect Employment

Jobs	6.5Mtpa	13Mtpa
Direct	700	1,040
Indirect	470	890
Induced	130	220
<b>Total</b>	<b>1,300</b>	<b>2,150</b>

6.14 This is in line with empirical evidence from elsewhere which suggests that the multipliers for mines are relatively high because they are capital intensive, have relatively well-paid workers and have high levels of added-value, for example. The last set of industry multipliers produced by the ONS in 2005 suggest a mining employment multiplier of up to 2.3. There would be a wide range of jobs created by the Project, for people with a range of skill and experience levels, including some entry level positions (as set out in Socio-Economic Technical Note 2: which is submitted alongside this application). In addition there would be high quality jobs created at the offices of Sirius in Scarborough, which has the potential to grow further as the Project progresses.

FIGURE 8. Total Employment Generated via Direct, Indirect and Induced effects at 13.5mtpa



### GDP Impacts

6.16 As set out above, YPL commissioned CRU Strategies to provide advice on the likely price and volume of polyhalite that could be sold onto world markets. The report subsequently provides a range of potential price points at which YPL could sell its production under different circumstances from \$110/t to \$170/t.

6.17 The central estimate for this assessment is \$150/t (£94). Sensitivity tests of the impacts under different pricing structures are included at the end in Section 7 of this report.

6.18 The following table sets out the sales values for both the initial level of production and the full output:

TABLE 8. Projected Annual Sales Values

Price	6.5Mtpa	13Mtpa
\$150/£94	£611m	£1.2bn

6.19 This will make a substantial contribution to the UK’s GDP. Extractive industries like mining have very high levels of added-value, the main component of GDP, because they have relatively low operating costs and a high value product<sup>1</sup>. Based on YPL’s forecasts, in the early years of operation the value added is as high as 90% of sales. Subsequently when maintenance spending becomes required it reaches its longer-term average of 75%.

6.20 Quod has estimated GVA based on YPL’s revenue forecast minus purchases of materials and services, excluding labour. The following table summarises the contribution to GDP for sales of 6.5Mtpa and 13Mtpa at \$150/tonne.

TABLE 9. Projected Annual Sales Values

Price	6.5Mtpa	13Mtpa
Sales	£611m	£1.2bn
Supply Chain Expenditure	£112m	£214m
GVA	£500m	£1bn

<sup>1</sup> Gross Value Added is defined as either revenue minus outside purchases (of materials and services) or labour costs plus profit. See ONS Input-Output Tables.

6.21 The contribution to GDP will therefore be £500m per annum in 2021 and £1bn per annum in 2024. At full production, the Project would permanently increase the economic output of North Yorkshire by 10% and would permanently increase the size of the YNYER LEP area economy by 5%.

6.22 This is significant in the context of the relative underperformance of the regional economy over the last economic cycle. Between 1997 and 2010 Yorkshire and The Humber showed the greatest downward movement of any region away from the indexed UK average GDP per head, with a decrease from 89.6 to 81.6 (where the average = 100).

### GDP Multiplier Impacts

6.23 As with employment, an equivalent multiplier effect will also add to GDP. This is lower than for employment because of the high level of GVA and proportionately lower level of purchases from the supply chain. The same methodology has been used as for the construction multiplier (see Paragraphs 5.13-5.14). The results are set out in Table 10.

TABLE 10. Gross Value Added (GVA)

	6.5Mtpa	13Mtpa
Direct	£500m	£1bn
Indirect	£35m	£66.5m
Induced	£5m	£8.5m
Total	£540m	£1.1bn

### Exports

6.24 As well as boosting GDP, the Project will help reduce the UK's trade deficit which was £27bn in 2013.

6.25 Mineral products are the third largest UK export sector with 8.2% of UK exports (behind Machinery and Electrical Products and Other Business Services). The UK can no longer rely on North Sea oil and gas to improve the balance of trade – production of both peaked in the late 1990s and is now at less than half those levels. In future, the UK is likely to export less and/or import more, further worsening the balance of trade. Addressing this is a major part of the Government's economic policy.

6.26 YPL anticipates the vast majority of its product will be exported with approximately 125,000 tonnes of initial production and 175,000 tonnes of full production being sold into the UK market.

6.27 Assuming 6.4Mtpa of initial production is exported, this would equate to over £599m of exports each year (at \$150 or £94 per tonne). For full production, assuming 12.8Mtpa of sales are overseas, this would equate to £1.2bn of exports each year and would reduce the UK's trade deficit by just under 4%.



## Tax

6.28 The Project will make a significant contribution to the national exchequer. The Government will collect income tax from the workers' salaries (both direct and indirect), from shareholders (on their dividends) and from landowners who receive royalties. They will also receive Capital Gains Tax, Stamp Duty, Corporation Tax and VAT (on domestic sales). Of these, Corporation Tax is likely to be the most significant as set out in Table 11. These figures have been estimated by YPL and Quod, based on the figures set out above for turnover, labour costs, profit and royalties at 6.5Mtpa and 13Mtpa.

## Local Payments

6.29 In addition to national taxes and duties, YPL will also pay local taxes and duties including business rates and royalties to landowners. These could total £27m in 2021 rising to £48m in 2024. The largest component of this is royalties to landowners which are estimated to be £15m at 6.5Mtpa and £29m at 13Mtpa. There would also be payments to shareholders in the local area. The proportion of the shareholding that is held by residents of North Yorkshire and Teesside is estimated at 13% and it is estimated that they will earn £4.3m in dividends at 6.5Mtpa and £8.2m at 13Mtpa. This is effectively

TABLE 11. Projected Tax Gains for Local and National Government

£m	6.5Mtpa (£m)	13Mtpa (£m)
Production Income Tax & NI - Salary	19.0	31.6
Income Tax - Royalty Payments	1.9	3.6
Income Tax - Dividends	7.5	14.3
Capital Gains - Royalty Payments	1.4	2.6
Capital Gains - Shares	6.3	12.6
Ongoing Stamp Duty	0.2	0.3
Corporate Tax	62.0	150.0
VAT	18.8	18.8
Total Taxation	£117.0m	£234m

Assumes \$150/£94 per tonne sales price

additional income for local residents which would be taxed, saved and spent much like wage income and would therefore support additional induced employment. Using the same assumptions as for the multiplier calculations for potash production, this would support a further 60 jobs at 6.5Mtpa and 130 jobs at 13Mtpa.

6.30 YPL's operations will also pay business rates estimated at just under £5m for its head office and its operating facilities. Under the new business rate retention, business rate uplifts in Enterprise Zones will be retained for use and reinvestment by the LEP. The MHF would be located in an Enterprise Zone and would have an annual business rate payment of around £3.7m.

5.31 The final local payment would be to the York Potash Foundation, which has been set up by YPL to enable the community to benefit from a community fund. This is an independently run body which is seeking charitable status. The Foundation's broad objectives provide a wide range of areas where it can support community projects. These are expected to range from bursaries, scholarships or skills training for local people to improving public spaces and facilities, environmental initiatives and community building projects.

6.32 YPL will contribute an annual royalty of 0.5% of revenue from the Project to the Foundation. Based on current estimates the annual payment could be £3 million at 6.5Mtpa of production and up to £6 million at full production. An initial start-up fund of £2 million will be contributed by YPL on the formal commencement of construction.

## 07 SENSITIVITY TESTS

7.1 As set out in the assumptions section of this report, there is potential for a variance around some of the figures used in these calculations. Quod has therefore run a series of sensitivity tests based on the following variations:

- A polyhalite price of \$100/t
- A polyhalite price of \$110/t
- A polyhalite price of \$170/t
- Construction and operational costs that are 25% lower than forecast
- Construction and operational costs that are 25% higher than forecast

### The Effects of the Price of Polyhalite

7.2 The CRU report identifies a demand window with prices ranging from \$110 to \$170 per tonne. Quod has therefore assessed these two prices. In addition, Quod has undertaken an assessment at \$100 per tonne to demonstrate that the Project is viable and profitable such that it continues to deliver corporation tax revenues even at levels below those identified by CRU as the price floor/high industry response.

7.3 Reducing or increasing the sales price of polyhalite by \$40 (or 26%) has the effect of varying the value of sales and exports by 26%. Similarly reducing the price by 33% to \$100/t reduces those benefits by 33%. The effect on GVA is slightly different because the cost base is close to fixed. The following table summarises the impact on GVA.

TABLE 12. Impact on GVA of Increase/Decrease in Sales Price

	6.5Mtpa	13Mtpa
\$100	£294m (-41%)	£599m (-40%)
\$110	£335m (-33%)	£680m (-32%)
\$150	£500m	£1bn
\$170	£580m (+16%)	£1.17bn (+17%)

7.4 The employment impacts are not affected by a change in the sale price of polyhalite and nor are the construction phase impacts.

7.5 Taxes would be affected as shown in the following table:

TABLE 13. Impact on Taxes of Increase/Decrease in Sales Price

	6.5Mtpa	13Mtpa
\$100	£62m	£136m
\$110	£74m	£155m
\$150	£117m	£234m
\$170	£138m	£272m

7.6 As set out above, it is expected that the price of polyhalite will increase over the long term so the tax take for Government would also increase over time.

## The Effects of Costs at +/- 25%

7.7 Varying capital expenditure during the construction phase by 25% moves all impacts more or less proportionately, i.e. they go up or down by approximately 25%.

7.8 Varying the operating cost has no effect on sales or exports. It does have an effect on indirect employment (because more or less money goes into the supply chain) and on GVA (because costs are higher or lower). This is summarised in the following tables.

TABLE 14. Impact of Increase/Decrease in Costs on Indirect Employment

Indirect Employment	6.5Mtpa	13Mtpa
-25%	330	630
Base	470	890
+25%	600	1,140

TABLE 15. Impact of Increase/Decrease in Costs on GVA

GVA	6.5Mtpa	13Mtpa
-25%	£532m	£1.1bn
Base	£500m	£1bn
+25%	£465m	£946m

## The Combined Effects of Costs and Price Changes

7.9 The only area where a combination of changes in costs and changes in prices interact to a significant extent is in calculating Corporation Tax. The combined effects of a 25% change in costs and a 20% change in prices means Corporation Tax varies in a range from +/- 42% to 47% at 6.5Mtpa and +/- 32% to 37% at 13Mtpa.

## 08 POTENTIAL ADVERSE IMPACTS

### Introduction

8.1 Discussions with NYMNPA have highlighted concerns that the proposed scheme could have adverse impacts by displacing economic activity that would otherwise have taken place. This focuses on two areas – a displacement effect on the nearby Boulby mine which is operated by Cleveland Potash Ltd (CPL), and the potential to deter and/or reduce activity in unrelated sectors such as tourism.

### Displacement Impacts on Cleveland Potash Ltd

8.2 NYMNPA has raised concerns about whether the Project could have an adverse impact on CPL by displacing some of its activity.

8.3 The HCA Additionality Guide (2014) defines displacement as follows:

8.4 Displacement arises where the intervention takes market share (called product market displacement) or labour, land or capital (referred to as factor market displacement) from other existing local firms or organisations. For example, an intervention may help a business to expand its operations. However, this business may take market share from other local firms producing the same goods or services, resulting in them losing trade and possibly staff. Alternatively, the supported business may use up scarce local factors of production (such as skilled labour) or bid up factor prices.

8.5 Under this definition, there are two potential displacement effects that could arise as a result of YPL's proposals – in product markets and in labour markets as a result of competition for workers.

### *Product Market Displacement*

8.6 There may be some product market displacement that could affect other CPL. In the global market this would not be significant – YPL's production is a small part of a very large global market. This can be assessed in two ways – with reference to the global market for either K2O or for polyhalite equivalent products.

8.6 The polyhalite produced from the YPL Project will compete in the global potash market due to its potassium content, but its impact in this context will be relatively low. The estimated global consumption of potash in K2O terms in 2024, the year that YPL is expected to reach full production, is 55 million tonnes per year (based on the CRU Report April 2014, extrapolating CRU's 2018 forecast of demand with a 3% annual growth rate estimated by ADAS). At full production of 13 million tonnes per year of polyhalite YPL will only be putting 1.8 million tonnes of K2O into the global potash market. This means that the YPL Project will contribute approximately 3.3% of the global K2O need in 2024. This contribution will not have a major impact on either production or price of the traditional potash products.

8.7 Polyhalite is a multi-nutrient fertilizer which will compete with several products due to its potassium, sulphur, magnesium and calcium content. The CRU Report April 2014 identified six fertilizer products with which Polyhalite will primarily compete based on the nutrient content. The estimated global consumption of these products in 2024 is expected to be approximately 460 million tonnes in Polyhalite equivalent terms. In 2024 YPL is expected to reach full production of 13 million tonnes of Polyhalite per year which means that YPL will contribute approximately 2.8% of the global nutrient demand in 2024.

8.8 The domestic impact will be particularly small. Within the UK, YPL estimates it will sell 125,000 tonnes in 2021 rising to 175,000 tonnes in 2024. This could take market share from either domestic or overseas producers. If it took market share from overseas producers this would be beneficial and further increase the positive impact on the UK's balance of trade as our reliance on imports would reduce. If it took market share from CPL this could have impacts on its business. At the level of sales expected (125,000tpa rising to 175,000tpa) any effect would be marginal, but could in theory lead to a small loss of employment and GDP generated elsewhere.

8.9 There is no means of knowing in advance whether YPL would displace UK or overseas producers from the market, but assuming both are affected equally this could equate to a loss to the UK of 62,500t of sales. This would only represent a reduction of less than 1% of YPL's economic impacts in the initial production of 6.5Mtpa and 87,500t (0.7%) under full production. It would therefore be negligible.

8.10 Set against this, CPL would be able to sell into the global market, as set out above, which could off-set some or all of any lost domestic market.

### *Labour Market*

8.11 As set out above, labour market displacement could occur if YPL were to compete with CPL for the same workforce and/or drive up wages across the sector as a whole because of the increased demand for specialist labour.

8.12 The labour required to reach 6.5Mtpa of output would be 700 operational jobs. Only 30% of these jobs i.e. 210 jobs would require prior specialist mining experience. The cost of these 210 would represent approximately 6% of annual operating costs.

8.13 There are already 2,370 workers living within 60 minutes are already engaged in the mining and quarrying sectors. The forecast closure of coal mines in the region will also increase the pool of available and trained employees from which the operational workforce could be drawn. Even if YPL does recruit people who currently work at CPL, their jobs would not disappear and CPL would be able to replace them, either from within their existing workforce or from outside.

8.14 The remaining 70% of operational jobs will be from the wider labour market including people from a wide range of sectors outside mining and some who are in training or have no previous work experience. These c.490 jobs would therefore be drawn from a wider labour maker of 295,000 people.

8.15 There would be an increase in labour required to ramp output up to 13mtpa resulting in a total workforce across the development of 1,040. It is envisaged that internal promotion and on-the-job training would mean that the majority of the new jobs requiring experience would be taken by existing employees. Newly created jobs would therefore be mostly in positions not requiring previous mining experience, and would not displace skilled employment from existing operations.

## Overall Impacts

8.16 Since the emergence of the York Potash proposals Cleveland Potash Ltd (CPL) has stated publicly that it has a secure long term future based on the on-going production and sale of Muriate of Potash (MOP), the traditional and widely-used potassium fertiliser product that is produced from the potassium chloride (sylvinite) seam mined at their Boulby operation.

8.17 It is known that the Boulby mine is now relatively old in mining terms and with ageing infrastructure. Nevertheless, in 2013 CPL announced plans for investment with £300 million to be spent over the next five years to upgrade much of the infrastructure and to invest in new equipment. CPL has also announced plans to develop facilities capable of producing 600,000 tonnes per annum of Polyhalite, supported by a Regional Growth Fund grant of £4.9m. Together these suggest that the mine is likely to continue to operate and that production is unlikely to be so marginal as to be vulnerable to any loss of market share to YPL or any increase in labour costs.

## Tourism Impacts

8.18 The National Park is a tourist destination, deriving a larger proportion of its economic activity from sectors that support tourism. Narrow definitions of tourist related employment estimate that between 2,000 and 3,000 employees have jobs dependent on the sector, whilst up to 5,000 employees within NYMNP are in sectors that are in some way supported by tourist activity. National Parks also have intrinsic value, captured in a number of “special qualities” – or the qualities that are unique or especially valuable and that have led to their Park’s designation<sup>1</sup>. These Special Qualities identify the local attributes that make NYMNP

nationally significant as a tourism destination, including tranquillity, dark skies, remoteness and diversity of landscape. These factors are identified as the key reasons why visitors come to the NYMNP and it is possible that any damage to these qualities perceived or otherwise, could reduce visitor numbers.

8.19 In order to assess the potential effects on tourism within the NYMNP, the potential effects on these Special Qualities (or other factors that could influence visitor behaviour or amenity) have been identified. This has been done using:

- the technical assessments undertaken as part of the Environmental Impact Assessment including noise, traffic and transport, landscape and visual impacts, light, air quality and socio-economics, taking into account planned mitigation. Focus has been placed on significant moderate or major effects;
- A visitors’ perception survey commissioned by YP and undertaken by Ipsos MORI; and,
- Evidence from elsewhere.

8.20 The full assessment draws on the assessments of the individual aspects of the scheme to understand the extent to which there will be landscape and visual, noise, traffic or amenity issues. It also reviews evidence from other schemes, including Fylingdales (see below). Taken together the actual estimated impacts presented in the EIA and people’s perception of those impacts gauged from the survey help to inform a more robust judgment on impact on tourism within NYMNP.

8.21 Within the EIA, the study areas considered are specific to each effect – for example, noise effects from construction and operation are highly localised, whilst visual effects may have a much wider impact area. The study areas have been

<sup>1</sup> As stated by Nationalparks.gov.uk

identified by the technical specialists in the case of each technical assessment relating sensitive receptors within or using the park, in particular visitors and tourist attractions, such as public rights of way or viewpoints.

### *Ipsos MORI Visitor Perception Survey*

8.22 In order to support an assessment of the potential for Project to impact on tourism, York Potash commissioned a survey of visitor perceptions, which was undertaken by Ipsos MORI.

8.23 The objectives of the study were:

- To understand visitors' attitudes to the proposed development, their perceptions of how it may impact upon the National Park, and how it might affect their likelihood to visit the National Park in the future; and
- To calculate an estimate of overall impact in terms of visitor numbers to the National Park and also in terms of income from tourism.

8.24 The survey was designed to provide reliable data and evidence to support forecasting while recognising that even well-designed surveys will have limitations. Forecasting a possible impact based on stated intention cannot be completely accurate (nor without uncertainty), but it is still an accepted method of estimating impact.

8.25 The survey was subject to external review by independent, industry-leading peer reviewers as well as internal review and as a result of these processes, Ipsos MORI is confident that the research delivers against the objectives set and that the survey and the estimates of economic impact are objective, balanced and robust. The report provides full transparency on the methods used, their assumptions, limitations and application, and the findings.

8.26 Despite this, in common with any perceptions survey, it has a number of limitations, which are clearly set out in the report on the survey's findings. Some of these are dealt with in the methodology, but there remain issues of response bias because of the prominence of the issue being surveyed (the York Potash Project). Whilst the survey is strong at measuring perceptions it is less reliable in actually predicting future actions (although the survey does include some factoring to deal with over-claim) and then quantifying the outcome in economic terms. To address this, the survey forms only part of Quod's overall assessment of tourism impacts.

8.27 The conclusions of the survey are primarily based on comparing the change in respondents' attitudes to visiting the NYMNP before and after they had been given a description of the Project. Respondents were asked in what ways the description had changed their views on visiting the NYMNP and how many nights they would stay on their next visit. Comparing this to how many nights' respondents said they would stay before the Project was introduced, enabled Ipsos MORI to calculate the total percentage change in visiting behaviour. Those who were considering visiting for a day trip rather than an overnight stay, and those that had not visited the area before were much more likely to be affected by the Project.

8.28 Ipsos MORI took the percentage change of visitor days and applied it to the NYMNP 2012 STEAM Report, which enabled them to estimate the possible economic impact of the Project on tourism in the NYMNP as follows:

- a negative annual impact of -£10.3 million during the construction period; and
- a negative annual impact of -£5.2 million during operations.



8.29 These overall results are relatively small in relation to total tourism income in the NYMNP – a loss of 3.4% during the construction phase and 1.7% during operations.

### *Perception vs Reality*

8.30 As the Ipsos MORI report makes clear that there is a degree of uncertainty in perceptions surveys. Therefore, the survey has been supported by a range of technical assessments undertaken for the EIA, which set out the actual effect on the NYMNP and the visitor experience there.

8.31 In the context of the diversity and breadth of the NYMNP tourism offer, the impacts are expected to affect a limited area of the park and be limited in their nature.

8.32 As set out in the EIA, the proposals would not result in any significant adverse effects with respect to light, noise, socio-economics or air quality during either its construction or operation.

8.33 Some significant adverse effects arising during construction have been identified, namely:

- Visual effects resulting from built structures; and,
- Disruption to a small number of pedestrian/cyclist routes.

8.34 Some of these effects will last for the total duration of the 58 month construction period, although for many visitors, their experience of these effects would be intermittent. For example, only certain sections of a PRoW may be affected by traffic obstruction or a view of the YPP. In the context of a full day spent in NYMNP, the effect would only be experienced for a small proportion.

8.35 The most prolonged visual impact would be experienced by walkers and cyclists along the Coast to Coast Walk and Moor to Sea Cycle Network (route 9, Langdale End to Whitby).

8.36 These effects would occur during the construction period. There would be no major adverse effects related to tourism that would continue beyond the construction period, and the remaining visual impacts will be reduced to minor or negligible after 1 year of operation; and negligible by 15 years, as plants designed for visual screening mature.

8.37 It is therefore likely that the estimates based on the perception survey are at the upper end of what might actually occur.

### *Evidence from Elsewhere*

8.38 Quod has reviewed evidence of major projects in sensitive locations elsewhere, drawing both on academic research and on raw data on employment in tourism-related sectors. The academic literature is consistent and can identify no effects on tourism, even when there are effects on things such as the landscape and visual effects.

8.39 In discussion with NYMNP it was advised that the use of evidence from outside the Park would present problems of comparability because of the unique nature of the National Park. Quod has therefore constructed an evidence base relating to the re-development of Fylingdales within the NYMNP area, using employment in tourism-related sectors as a proxy for the overall health of the sector. Employment is a relatively reliable proxy for the tourist sector. Employment tends to be seasonal and short-term contract work, which means that

employers can respond relatively quickly to falls (or increases) in demand by not taking on extra staff in peak periods. Fylingdales is less than 10 miles away from the Dove's Nest site. It was re-developed between 1989 and 1992 from its distinctive "golf balls" into a concrete pyramid.

8.40 It should be noted that because of ward boundary changes, the definition of the National Park area used here is not completely consistent with the definition used elsewhere in this assessment<sup>2</sup>. However, it is consistent between years in the table below and therefore allows us to compare changes over time for this defined spatial area, which includes a large proportion of the NYMNP, including Fylingdales.

TABLE 16. Tourism Employment in NYMNP 1984 to 1998

Year	Employment in Tourism Sectors
1984	2,250
1987	1,897
1989	2,374
1991	3,159
1991	3,255
1993	3,253
1995	2,696
1996	3,272
1997	2,731
1998	2,733

<sup>2</sup> The boundary differs in that it does not include the small part of Redcar and Cleveland within NYMNP south of Guisborough. It also includes a small area outside the park in Ryedale District.

8.41 The data is drawn from the Annual Employment Survey employee analysis, based on 1980 SIC codes for 1984-1991 and 1992 SIC Codes for 1991 (repeated) – 1998<sup>3</sup>. It is general practice, when the ONS changes the methodology for classifying this data, for it to produce data for a single year – in this case 1991 – using both methodologies. This is so potential differences created purely by methodology can be highlighted. As shown in the table, the difference between the two methodologies in 1991 was small, indicating that for the SIC codes chosen, there is a relatively high level of continuity.

8.42 It can be seen that there was no reduction in tourism employment, either during the construction period, or in the years following. This is despite the fact that there was a major recession lasting from late 1990 until early 1992, during which time GDP fell by 2.5% and took almost 3.5 years to regain its previous peak.

### *Changes in the Tourism Economy*

8.43 As set out above, the survey is based on the perceptions of respondents identifies the potential for changes in visitor numbers and tourism activity. However, it is unlikely that even this level of impact would cause significant difficulties for tourism-related business as they already cope with significant fluctuations in their business year-on-year. The evidence for this is extensive.

8.44 For example, the Yorkshire and Humber Regional Visitor Survey in 2011 identified significant variations in spending in the years 2009 to 2011<sup>4</sup>. Spending per party per trip increased from £198.45 in 2009 to £204.67 in 2010 (3%) and then fell back to £190.62 in 2011 – a fall of 7%. Similarly, the

<sup>3</sup> The transfer between 1980 SIC codes and 1992 SIC codes was done using ONS comparison tables and a detailed assessment of the 4 digit level industrial sectors to ensure the maximum level of comparability over time.  
<sup>4</sup> [http://www.northyorkmoortourism.com/uploads/4/8/5/6/4856328/rvs\\_qa\\_research\\_\\_tourism\\_network\\_report\\_final.pdf](http://www.northyorkmoortourism.com/uploads/4/8/5/6/4856328/rvs_qa_research__tourism_network_report_final.pdf)

STEAM data collected for NYMNPA<sup>5</sup> shows that total expenditure went from £267m in 2010 to £304m in 2011 and then back to £298m in 2012 – changes of +14% and then -2%. At the same time, the effects on employment were relatively small – employment increased by 413 in the first year (9%) but then declined by only a handful of jobs (11 or 0.2%) in the second year.

8.45 This demonstrates firstly that the annual fluctuations in tourism can be greater than those projected in the perceptions survey and secondly that changes in visitors numbers and spending do not necessarily translate into impacts on employment.

## Conclusions

8.46 This section has examined the potential for adverse effects to arise as a result of the Project. NYMNPA has raised two specific concerns – impacts on CPL and impacts on tourism.

8.47 The evidence from CRU, YPL's own labour market forecasts, and CPL's recent proposal to mine polyhalite all indicate that the future of Boulby would be secure even if YPL's proposals go ahead. There will be minimal product market displacement and the potential for labour market displacement is limited to around 30% of YPL's workforce requirements (only 210 workers). In reality, the scale of any impacts would be significantly lower. The mining workforce for both CPL and YPL will be drawn from a vast local pool of people already working in mining and quarrying in the area, just outside local area (coal mines closing down) and further afield (especially for the specialist positions). These points are covered in Technical Note 2 (TN2) one of the application documents. Furthermore, as set out in the next section, YPL has already started implementing a skills strategy that will ensure it

trains and recruits as many new entrants to the industry as possible.

8.48 The tourism perceptions survey undertaken by Ipsos MORI suggests that there could be an effect of up to £10.3m per year during construction and £5.2m per year during operation. These estimates are likely to be the upper end of actual impact, for a number of reasons.

8.49 Firstly, as set out above, the specific issues that cause concern (such as noise, visual and traffic impacts) are limited in their geographical scale which means there will be significant opportunities for tourist visits that would not be affected by these factors. Secondly, experience elsewhere, including Fylingdales within the National Park, suggests that there is limited evidence that either construction or operation of major developments leads to adverse tourism impacts, even when they have significant visual or other effects. Thirdly, the evidence from tourism assessments in both Yorkshire and the Park itself demonstrate that tourism businesses have to cope with significant levels of year-on-year change in tourism visits and spend. There is therefore every reason to expect that they would be able to adapt to any temporary change during the construction period of the York Potash Project. Finally, YPL will develop mitigation measures in partnership with NYMNPA and Welcome to Yorkshire (see next Section).

8.50 Even if the worst case scenario were to occur, the potential adverse impacts are very small in comparison to the scale of benefits the Project will bring. A 3% loss of tourism employment during the construction phase would equate to around 150 jobs being lost. This compares to the creation of about 750 well-paid, mainly full-time jobs within the Park at the Mine itself. Similarly, the loss of tourism activity at £5.2m during the operational phase is insignificant in comparison to the £1.2bn of annual turnover generated by the Project.

<sup>5</sup> North York Moors National Park STEAM Report 2012

## 09 DELIVERING LOCAL BENEFITS

9.1 This report has set out the enormous scale of the benefits of this Project at a national, regional and local level.

9.2 At the local level, the effects are smaller in absolute terms, but more significant, given the smaller scale of the area.

### *Estimating Local Benefits*

9.3 Quod has estimated where residents with skills that are relevant to the Project currently live. Together with the transport advisers on the Project, Quod has created a model that maps the likely home locations of the direct workforce. The location of indirect jobs will be linked to the likely location of YPL's suppliers, which has been estimated by YPL. Induced employment arises from the spending of these direct and indirect workers. Table 17 and 18 therefore set out the broad locations of the direct and indirect jobs and the induced jobs that are associated with each.

9.4 This model assumes YPL will recruit from across the daily commuting zone and does not assume that there will be a particular focus on very local skills development and recruitment. The implementation of the YPL Skills Strategy would

have the effect of increasing the local benefit still further. The aim of the Strategy is to reduce the number of people coming from the wider TTWA and maximise the number of people from Scarborough, Redcar and Cleveland and NYMNP who work on the Project.

9.5 Indirect employment effects depend to a large extent on the locations of suppliers, and in turn where their workforces live. This is much harder to model and therefore figures are presented at aggregated spatial scales (i.e. local and regional defined as Scarborough and Redcar districts and the remainder of the combined LEP areas).

9.6 YPL has provided a breakdown of where it expects to source its manufacturing and other supplies. It estimates that 55% of its manufacturing requirements can be sourced from the local area and a further 24% from elsewhere in the LEP areas. Of its other requirements (excluding utilities) 85% can be sourced locally and 10% from elsewhere in the region. This allows an estimate of where the indirect employment jobs would be located and again, a related estimate of the induced employment impacts that will arise from the spending of those people.

TABLE 17. Local Jobs - Direct and Induced  
(N.B. will not sum due to overlapping boundaries)

	Direct	Direct	Induced	Induced	Total	Total
	6.5Mtpa	13Mtpa	6.5Mtpa	13Mtpa	6.5Mtpa	13Mtpa
Scarborough	83	124	12	18	95	142
Redcar & Cleveland	308	457	44	66	352	523
NYMNP	222	331	32	48	254	379
Elsewhere (within TTWA)	341	459	49	66	390	525

TABLE 18. Local Jobs - Indirect and Induced  
(N.B. will not sum due to overlapping boundaries)

	Indirect	Indirect	Induced	Induced	Total	Total
	6.5Mtpa	13Mtpa	6.5Mtpa	13Mtpa	6.5Mtpa	13Mtpa
Scarborough & Redcar & Cleveland	150	350	18	44	168	394
Remainder of Y&H & NE regions	60	135	7	17	67	152
Elsewhere (in the UK )	280	400	34	51	314	451

9.7 For the deprived areas of Teesside, and the seaside towns of Whitby and Scarborough in particular the Project will provide a huge boost in terms of well-paid, full-time employment. This will also benefit residents of the National Park.

### Enhancement and Mitigation

9.8 YPL is committed to enhancing these benefits and providing mitigation to address NYMNPAs concerns about adverse effects through a range of strategies and other interventions. These are set out in this section.

#### *The York Potash Skills Strategy*

9.9 YPL has already published the second iteration of its Skills Strategy, appended to this report. The aim of the strategy is to enable people to acquire the skills necessary to be able to access jobs in the initial phase of production or during the ramp-up to full production. In particular, once the Project is operational it will be easier for YPL to recruit locally and train people on-site.

9.10 The Strategy sets a target of having at least 80% of the workforce sourced from the local area and to increase that figure over time. The Strategy sets out four key themes:

- **Attract** - Raise awareness of the Project and the range of career opportunities, thereby increasing demand for relevant courses and qualifications.
- **Train** - Work with educational institutions and other stakeholders to enrich and align the relevant curriculum areas, and develop bespoke provision, thereby increasing the supply of skilled people.
- **Recruit** - Provide employment routes into York Potash.
- **Retain** - Support continuous professional development of all staff, enabling workers to progress their careers within York Potash.

9.11 A significant proportion of workers would not need any previous mining experience. They would be selected on the basis of their transferrable skills and aptitudes and could also be trained on the job. All staff will receive ongoing training to gain recognised qualifications relevant to their roles and to support their progression through the Company.

9.12 At a production level of 6.5Mtpa, across all components of the Project, around 30% of workers will need to have prior mining specific experience. Of the remaining 70% a proportion will need prior vocational experience relevant to their post, but not necessarily in mining, whilst others could be trained without prior experience.

9.13 Across the Project as a whole around 10% of positions will require a Level 4 qualification such as degree, masters or a doctorate. Approximately 55% of roles will be at Level 3, which is an A-Level standard or equivalent, and could be gained through work-based learning.

9.14 The remaining 35% of jobs, such as mining or process operatives, will be Level 2 which is GCSE grade A-C or equivalent. The high proportion of Level 3 and above positions reflects the skilled nature of the workforce required. In other mining operations, the proportion of Level 2 positions will normally be higher.

9.15 YPL has already undertaken a range of activities under each of the key themes in the Strategy. These include:

- **The launch of Potash Prospects** – the York Potash careers guide which has been widely distributed after a launch attended by over 100 education professionals
- **Scarborough Engineering Week** – YPL has been the headline sponsor for the last three years
- **Career presentations and events** – engaged over 4,000 students
- **Learning resources** – twelve schools and colleges have used resources developed by YPL to enrich the school curriculum, particularly in sciences and geography

- **Site visits** – from schools, colleges and universities
- **Membership of education and skills advisory boards** – YPL is represented on the Redcar and Cleveland College STEM Employer Board, and the York, North Yorkshire and East Riding LEP Employability and Skills Board.
- **Employing apprentices** – YPL has already recruited five apprentices to its head office
- **York Potash Undergraduate Programme** – five local young people studying engineering, geology and environmental science are receiving bursaries and paid summer placements for the duration of their courses
- **Work experience** - six young people in either Year 10 or 11 have spent time on work experience during the last year.

9.16 The YPL Skills Strategy contains an Action Plan, which outlines a range of activities to help the Company to deliver its commitment of sourcing its workforce from the local area wherever possible. This includes the following provisions and undertakings as part of the S106 agreement.

- a) Funding to improve the awareness of Science, Technology, Engineering and Maths (STEM) in primary schools;
- b) Funding for the provision of STEM resources and activities for secondary schools and further education;
- c) Funding to provide resources to identify and prepare local people for opportunities during construction and operation;

d) In addition, undertaking to:

- Create 50 apprenticeship opportunities initially over a 5 year period and commitment to maintain an apprenticeship programme.;
- Support 15 people over 5 years (3 per year) through the York Potash Undergraduate Programme;
- Deliver work based training for 250 people in preparation for mining operations;
- Train 50 people with transferable skills to become tradespeople in mining operations;
- Deliver quarterly employment opportunity information sessions targeted at the local unemployed.
- Establish Local Supply Engagement Group to develop and implement the York Potash Local Supply Chain Engagement Strategy.

### *Supply Chain Development*

9.17 YPL recognises the potential of a Project of this magnitude to contribute to the economic development of the local region. Sourcing goods and services in North Yorkshire and Teesside is in keeping with YPL's objective of making a substantial socio-economic contribution to the local economy, both during construction and once the Project is operational.

9.18 YPL is therefore developing a Local Supply Chain Engagement Strategy that both meets the needs of the company for the reliable and efficient supply of high quality goods and services, and also enables local firms to be involved in the supply chain. The strategy will cover a wide range of goods and services to be supplied to the Project, from providing catering supplies for construction canteens, to the supply of construction materials

and services. The objectives of the Strategy, which is appended to this report, are to:

- Ensure that businesses in the region are aware of opportunities and know how to respond
- Ensure that businesses are aware of the standards required to become suppliers to York Potash and its contractors, and have the capacity to meet these standards
- Identify potential suppliers in the area
- Monitor the extent of local supply chain engagement

9.19 YPL has already started the process of engaging with the Local Enterprise Partnerships, local authorities, and business representative groups such as Chambers of Commerce, the Confederation of British Industry and the Federation of Small Businesses to begin the process of enabling local firms to compete for contracts.

9.20 The first stage is to understand the capabilities of the local area, and to produce a database of local firms who might be interested in playing a part in the supply chain. There is a facility on the York Potash website for local businesses to express their interest in becoming suppliers across a range of general categories including:

- Manufacturing
- Engineering and mining
- Accommodation and catering
- Logistics
- Safety and security
- Professional services (planning, creative and corporate)
- Training and recruitment
- Safety and security
- Site works and plant hire

9.21 Local companies can register their interests, business details, capacity and capabilities. The supplier form has been active for two years and in this time 925 businesses have registered their interest, with 350 being located in the North Yorkshire and Teesside area.

9.22 A Local Supplier Engagement Group will be formed to take activity forward and include representation from YNYER LEP, TVU LEP, Chamber of Commerce, Federation of Small Businesses, Redcar and Cleveland Borough Council, Scarborough Borough Council and Ryedale District Council.

9.23 The group will be responsible for disseminating information about the Project and its supply chain opportunities. YPL and its stakeholders will also hold information sessions to demystify the sector for new entrants, and workshops and capacity building sessions to prepare businesses for potential opportunities, covering a range of topics such as gaining accreditations, etc.

9.24 YPL has already put out a call, inviting companies to express their interest in becoming sub-contractors in construction. The information will be collected on a database shared with Tier 1 contractors who are being invited to tender for the shaft-sinking and the MTS. Examples of potential supply chain opportunities are set out in the following table:

TABLE 19. Supply Chain Opportunities

Construction sector	Other sectors
Concrete and materials	Catering
Steel Products	Site security
Cabling and electrical contractors	Training
Earthworks and excavation contractors	Cleaning services
Plant and equipment hire	Transport and logistics
Mechanical contractors	IT and Communications
Framework	Printing and copying
Roads and fencing	Vehicles
Roofing, floor and wall covering	Recruitment
Architectural and design services	Personal Protective Equipment

9.25 In addition to construction-related opportunities, the Project is already using local businesses. Since April 2011 York Potash has spent almost £7.5 million on goods and services provided by businesses in Teesside and North Yorkshire including site preparation and construction services, engineering consultancy, accommodation and catering, recruitment, training and office equipment.



9.26 There will also be significant on-going opportunities for local business as the Project moves into production. As set out above, the Company estimates that at a production level of 6.5Mtpa supply chain expenditure on the goods and services required to operate the Project will be approximately £110 million per annum, rising to over £210 million at full production of 13Mtpa.

9.27 A copy of the Strategy is appended to this report.

### *Tourism Promotion*

9.28 The potential impacts on tourism have been set out in the previous section. Quod does not believe that the impacts will be significant. However, the perceptions survey produced by Ipsos MORI has raised the potential that some visitors may be deterred from visiting the area.

9.29 YPL is therefore proposing providing funding to support local, national, and international promotion of the North York Moors as a high quality tourism destination.

9.30 The proposed scope of the contribution is:

- Funding promotional campaigns promoted by Welcome to Yorkshire focussing on the promotion of the North York Moors to increase awareness and visitor numbers during the construction and post-construction period.
- Funding to NYMNPA for promotional activities, local tourism businesses, Visit England and Visit Britain.
- Funding for the provision of directional brown signs giving advance notice of the North York Moors National Park when approaching from trunk roads.

9.31 This will be secured through the S106 agreement.

### *Investment in the Esk Valley Railway*

9.32 YPL is also proposing an investment in the Esk Valley Railway to support an increase in service frequency from four services per day to eight.

9.33 The line connects Whitby with the national rail network at Middlesbrough. It serves 11 intermediate stations, both on the edge of Teesside and along the Esk Valley linking them to the shops, services and community facilities such as schools and healthcare at either end. It provides a vital public transport link in an area with limited public transport options.

9.34 The Esk Valley Railway Development Company's (EVRDC) Action Plan<sup>1</sup> states that the current service level does not "meet the needs of either residents of or visitors to Whitby, the Esk Valley or the North York Moors. A faster service with increased frequencies and/or more capacity would provide the local community, and its large number of visitors, with a transport facility which is more attuned to meeting their needs. Four trains a day in each direction is not an acceptable level of service in today's world, and needs to be substantially enhanced."

9.35 The plan notes that commuting by rail into Middlesbrough is growing steadily, but commuting to and from Whitby is not possible due to the timing of the first service out of Whitby. The route supports a wide range of uses. For example, 90% of travellers into Whitby on the early weekday mornings service are schoolchildren. Later in the day up to 80% are visitors. In the other direction, visitors and shoppers make up most of the morning trips.

<sup>1</sup> [http://www.eskvalleyrailway.co.uk/downloads/EVRDC\\_Action\\_Plan\\_2011.pdf](http://www.eskvalleyrailway.co.uk/downloads/EVRDC_Action_Plan_2011.pdf)

9.36 The Action Plan contains a number of short-term aims that would make a small difference to the service such as timetabling changes to ensure better connections at Middlesborough. In the longer-term it seeks a range of improvements including and enhanced summer service, particularly during the school holidays, to reflect and capitalise on the popularity of Whitby as a tourism destination, to enhance the quality of life for the locality by reducing the number of car journeys through the national park and to relieve congestion in the Whitby area.

9.37 YPL has begun discussions with relevant stakeholders to understand how it might invest in the railway to support some of these longer term aims. Additional services could have two significant benefits. Firstly, they could provide a significant boost to tourism in the area, enabling more people to visit Whitby and the surrounding area, and secondly, they would significantly increase the ability of residents of Whitby and the Esk Valley to access shops and services in Middlesborough.

9.38 This will be backed by funding secured through the S106 agreement.

## York Potash Foundation

9.39 The York Potash Foundation has been set up by the Company to enable the community to benefit from a community fund. This will be an independently run body which is seeking charitable status and will “asset lock” its income so that it is used solely for charitable purposes.

9.40 The Company will contribute an annual royalty of 0.5% of revenue from the Project to the Foundation. Based on current estimates the annual payment could be £3 million at 6.5Mtpa of production and up to £6 million at full production. An initial start-up fund of £2 million will be contributed

by the Company on the formal commencement of construction.

9.41 The Foundation’s broad objectives provide a wide range of areas where it can support community projects.

9.42 Its formal objectives are to:

- advance education including by supporting projects and training that benefit people from the area of benefit by enhancing their skills;
- promote the general health and well-being of the community;
- advance environmental protection and improvement including by enhancing the local landscape;
- advance citizenship and community development including by improving community facilities to bring people in the area of benefit together; and,
- relieve those in need because of financial hardship by virtue of being out of work, particularly the long-term unemployed, by helping them to gain skills.

## Conclusion

9.43 The economic benefits of the scheme will be very significant. As set out in this section, YPL has put together a wide-ranging programme of activities and investments that will seek to capture the benefits for the local area and its residents. This will begin with the skills and supply chain strategies and be complemented by the proposed partnerships with Welcome to Yorkshire and the Esk Valley Railway. YPL is also committed to the early funding of its Foundation which will allow the wider community to benefit from its funding. These interventions are likely to be secured through a S106 agreement with NYMNP.

## 10 CONCLUSIONS

10.1 The York Potash Project will bring significant national benefits and contribute to the Government's core economic objectives of increasing economic growth, rebalancing the economy, increasing exports, achieving Full Employment and reducing the deficit.

10.2 It will also provide a significant local boost and help to tackle some of the current and emerging problems across the local and regional economies.

10.3 This report presents the summary of these economic benefits, for both the construction and operation of the polyhalite mine and associated developments; and it forms part of the evidence base that supports the planning applications.

10.4 Both national and regional policy (in the form of the LEPs) place great emphasis on economic growth, increasing employment and boosting exports. The YNYER LEP Strategic Economic Plan identifies the York Potash Project as one of the "Growth Drivers" in the Yorkshire Coast part of the region and is highlighted as one of only three "Major Opportunities" across the LEP area.

10.5 The Dove's Nest site lies within the relatively prosperous area of the NYMNP, but immediately around the Park there are significant areas of deprivation, including at the other end of the MTS, where the Harbour Facility and associated material handling facility are located within one of the most deprived parts of the country. These are in addition to pockets of deprivation in nearby Whitby and Scarborough.

10.6 The Park itself is very reliant on a small number of vulnerable sectors and, in common with the wider YNYER LEP area, has disproportionate amounts of employment in agriculture, tourism and public services. As a result, productivity and

economic output are relatively low. There are also economic risks, with NYMNP's Management Plan noting that the value of tourism has been declining.

10.7 Whilst unemployment and economic inactivity are not significant problems within the Park itself, they are in the areas around the Park, where employment rates are significantly below the target of 73%. The TTWA as a whole has relatively low wages, low levels of full-time employment (both inside the park and outside). In Scarborough and Redcar and Cleveland in particular, out-migration and an aging population present challenges for the economy. Job density is low; in the TTWA as a whole, there are too few jobs to allow the economy to prosper.

10.8 The Project would have significant and positive benefits on all these things - directly, through employment and output and indirectly through the supply chain and employee expenditure. It would result in an increase in GDP; a nationally significant reduction in the trade deficit; over 1,000 high value direct jobs and many more in the supply chain, boosting the employment rate and spending power; corporate and income tax receipts; and royalty payments.

10.9 It is recognised that these effects would be sensitive to changes to the price at which polyhalite can be sold and to changes in the cost of operation. Sensitivity testing for a range of possibilities shows that, even in the case of a lower prices and/or higher costs, the impacts of the Project would be nationally significant.

10.10 It is also recognised that there is at least the potential for adverse effects to arise as a result of the Project. NYMNP has raised two specific concerns – impacts on Boulby and impacts on tourism.

10.11 The evidence from CRU, YPL's own labour market forecasts, and CPL's recent proposal to mine polyhalite all indicate that the future of Boulby would be secure even if YPL's proposals go ahead. There will be minimal product market displacement and the potential for labour market displacement is limited to around 30% of YPL's workforce requirements - or 210 people.

10.12 The tourism survey undertaken by Ipsos MORI concludes that there could be a possible effect of up to £10.3m per year during construction and £5.2m per year during operation, without taking any potential mitigation measures into account. These estimates are likely to be the upper end of actual impact. As set out above, the specific issues that cause concern (such as noise, visual and traffic impacts) are limited in their geographical scale which means there will be significant opportunities for tourist visits that would not be affected by these factors. Similarly, experience elsewhere, including Fylingdales within the National Park, suggests that there is limited evidence that either construction or operation of major developments leads to adverse tourism impacts, even when they have significant visual or other effects. Finally, the evidence from tourism assessments in both Yorkshire and the Park itself demonstrate that tourism businesses have to cope with significant levels of year-on-year change in tourism visits and spend. There is therefore every reason to expect that they would be able to adapt to any temporary change during the construction period of the York Potash Project.

10.13 In addition, YPL is proposing a range of activities that would further boost the positive impacts of the scheme and mitigate the potential for adverse impacts. This will begin with the skills and supply chain strategies and be complemented by the proposed partnerships with Welcome to Yorkshire and the Esk Valley Railway. YPL is also committed to the early funding of its Foundation which will allow the wider community to benefit from the Project. These interventions are likely to be secured through a S106 agreement with NYMNPA.

10.14 The benefits of the Project as a whole, based on the central cost and price case, are summarised in the following table.

10.15 The benefits would be strongly felt within York, North Yorkshire, East Riding and Tees Valley LEP areas, but would be of a significant magnitude and reach to have national effects, especially with respect to GDP, exports and the trade deficit. Collectively, these impacts demonstrate that the York Potash Project makes a large and lasting contribution to meeting national need and core local and national policy objectives.

TABLE 20. Concluding Impacts

Benefit	Magnitude
Construction - Total Construction Period	
Construction Capital Investment	£1.7bn
Construction Direct Employment	1,670 at peak
Construction Indirect and Induced Employment (one year)	9,720
Construction direct, indirect and induced GVA	£1.1bn
Tax receipts during Construction Phase	£188m
Operational – Annual at full operation (13Mtpa)	
Annual Expenditure	£214m
Direct Jobs	1,040
Annual Direct Salary Payments	£35m
Indirect and Induced Employment	1,100
Annual Sales	£1.222bn
Annual Export Value	£1.205bn
Annual Direct GVA	£1bn
Annual Indirect and Induced GVA	£75m
Annual Operational Taxation	£234

# A1 Key Business Assumptions

## 1. Introduction

The purpose of this document is to set out the key business assumptions underpinning Quod's assessment of the economic benefits to be derived from the York Potash Project (the "Project" or "York Potash"), including the capital costs of construction ("Capital Costs") and ongoing operating costs of the Project ("Operating Costs"), and the basis for those assumptions. The Project has a robust business model that will ensure it can continue to deliver economic benefits for the duration of mining operations, which are expected to have a lifespan of at least 100 years.

## 2. Revenue Assumptions

Quod has considered the economic impact of the Project based on a range of assumptions for the future selling price of polyhalite. These assumptions are supported by a separate report by CRU Strategies on the market for polyhalite, which has been submitted to NYMNPA. This study confirms that there will be market capacity to absorb York Potash's production of polyhalite, up to full capacity of 13Mtpa, at FOB Teesside prices ranging from \$110 to \$170 per tonne.

## 3. Cost Assumptions

The majority of Capital and Operating Cost assumptions for the Project used in the methodological calculations which Quod has used to generate the economic impact figures contained in its Headline Economic Benefits Report (the "Economic Benefits Report") are derived from the Pre-Feasibility Study ("PFS") completed for the Project, the key results of which were made public through a Project Study Update in December 2012. The estimated Capital Costs used for expansion to 13Mtpa of production capacity in the Economic Benefits Report are based on PFS estimates and ongoing engineering works.

In addition to the PFS-based estimates additional estimates have been used for the change in the transport system from the pipeline to the Mineral Transport System ("MTS"). In February 2014, following a detailed review by external engineering consultants, Sirius Minerals announced a change to the Project development, to replace the slurry pipeline scheme for transporting polyhalite (as envisaged by the PFS) with a new MTS consisting of a series of linked conveyors within an underground mining style tunnel, to transport dry polyhalite from the Mine site to the Materials Handling Facility at Teesside.

The MTS is expected to result in reduced Operating Costs from the PFS estimates, by approximately 25% (for the economic impact assessments a more conservative estimated reduction of US\$ 8 (GBP 5) per tonne, has been assumed).

The total Capital Cost of construction after removal of the pipeline costs and adding in the MTS costs is expected to increase by approximately US\$280 million (£175 million). The MTS is also expected to enable the hoisting capacities of the main rock shaft at the Mine to be increased to 13Mtpa with no material additional capital cost relating to the MTS.

York Potash has considered options for product expansion into blended NPK fertilisers and SOP production (which are outlined in a Project Study Update announced by Sirius in December 2012) however these options are not considered by Quod's assessment, which only considers the direct sale of granulated polyhalite.

No contingencies for overruns have been included in the Capital Cost estimates used in the Economic Benefits Report. This is a conservative assumption as increased Capital Costs would have the effect of increasing the construction benefits in terms of employment and wider multiplier benefits.

## Capital Costs

Total Capital Costs assumed in the assessment are summarised in the table below:

TABLE A1: Capital Costs

Component	£m
Initial Development	
Mining & Shafts	607
MTS	438
Material Handling Facility	191
Harbour Facility	75
Power and Utilities	82
<b>Total at 6.5Mtpa</b>	<b>1,392</b>
Expansion	
Mining	136
Infrastructure	169
<b>Total at Full Capacity – 13Mtpa</b>	<b>1,697</b>

The Capital Costs of £1.4 billion to install the initial capacity will be funded through a mix of debt finance and other sources of capital including operating leases and infrastructure outsourcing. The Capital Costs associated with the expansion to full capacity will be funded by cash flows from the Project.

## Operating Costs

Total Operating Costs assumed in the assessment are summarised in the table below:

TABLE A2: Operating Costs

Component	£ per tonne
Mining	6.7
Shafts	0.9
Ore Handling at Mine	2.3
Materials Transport System	1.9
Processing at Harbour Facility	2.7
Harbour Facility Infrastructure	2.7
General Infrastructure	1.4
<b>Total Operating Costs per tonne</b>	<b>18.5</b>

## 4. Timing Assumptions

### Project Duration

Based on defined Resource York Potash can expect to operate at full capacity of 13Mtpa for well over 100 years. York Potash has undertaken a comprehensive drilling programme and have total estimated Mineral Reserves and Resources of 2.7 billion tonnes at an average grade of 85.7% polyhalite. This represents the thickest and highest grade polyhalite ore reserve in the world and comprises an Indicated Mineral Resource of 820 million tonnes of polyhalite at an average grade of 87.3%. The Mineral Reserves and Resources were prepared by independent consultants SRK Consulting (UK) Ltd in line with industry standards (JORC).

### Initial Development and Expansion to Full Capacity

Following the revised timetable for approvals, construction of the Project is expected to begin in Q1 2015 with first production in the second half of 2018 and ramp-up to allow production of 6.5Mtpa of polyhalite in 2021 and 13Mtpa in 2024.

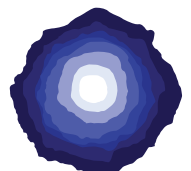


## A2 York Potash Skills Strategy

# **YORK POTASH** **SKILLS STRATEGY**

September 2014  
Version 2

**YORKPOTASH**  
A Sirius Minerals Project





# 1.0 INTRODUCTION

The York Potash Project can deliver substantial benefits to the local area, and the wider regional and national economies, for generations to come.

## OUR COMMITMENT

Once at full production the project will directly employ over 1,000 people, with more than a thousand further jobs created indirectly in the supply chain. The direct jobs will be wide ranging, from skilled tradespeople and technicians to mine and process operatives, engineers, business experts, IT specialists and administrators. There will also be significant employment opportunities during construction.

To operate the mine, processing plant and associated infrastructure, requires skilled and committed people. York Potash has stated on many occasions that it intends to employ local people wherever possible. There is a recognition that some skills may have to be brought in at first, particularly for the most senior positions, although the Company will always look locally first. Moving towards full production, the Company aims to have at least 80% of the workforce sourced from the local area, and to increase this figure moving forward.

## PURPOSE OF THIS STRATEGY

The Skills Strategy sets out how the Company intends to deliver the aim of sourcing as many staff as possible from the local area. Implementing the strategy will not only significantly increase the supply of people with the skills and qualities required by York Potash, but also for other businesses in the area requiring similar skill sets.

Section 2 identifies the jobs that will be created by the project, whilst Section 3 examines the capacity of the local labour market to respond to this requirement. Section 4 details the Company philosophy, approach, and activity to date. Section 5 sets out an action plan for the next four years, focusing on the following themes:

- **Attract** – Raise awareness of the project and the range of career opportunities, thereby increasing demand for relevant courses and qualifications.
- **Train** – Work with education institutions and other stakeholders to enrich and align the relevant curriculum areas, and develop bespoke provision, thereby increasing the supply of skilled people.
- **Recruit** – Provide employment routes into York Potash.
- **Retain** – Support continuous professional development of all staff, enabling workers to progress their careers within York Potash.

## 2.0 YORK POTASH WORKFORCE REQUIREMENT

### 2.1 OVERVIEW

A significant amount of jobs will be created both during construction, and when the mine is operational. The workforce requirement estimates have been informed by experienced engineers from York Potash, together with input from specialist engineering consultancies and construction contractors.

Jobs will be created throughout the York Potash Project, and include:

- Mining operations at the mine site near Whitby.
- Mineral Transport System (MTS), which will carry the mined ore on an underground conveyor belt system in a tunnel running from the mine to Teesside.
- Materials Handling Facility (MHF) at Wilton in Teesside which will granulate the mined polyhalite and create the final product.
- Harbour facility at Teesside which will handle onward transportation of the product.

In addition further jobs will be created in support services at the Head Office, which is currently located in Scarborough.

Production is targeted to ramp up to a maximum capacity of 13 million tonnes per annum (mtpa) by 2024, with a capacity installed to enable production of 6.5mtpa in 2020. **Table 1** below shows the estimated operational workforce requirement at different levels of production for each component of the project.

**Table 1: Operational workforce requirement**

Project Site	Production – 6.5mtpa	Production – 13mtpa
Mine	435	725
MTS	90	90
MHF	86	109
Harbour	26	34
Head Office	64	81
<b>Total</b>	<b>701</b>	<b>1,039</b>

The ramp up to a 700 strong workforce will begin to build up to significant levels during 2018. It is currently estimated that there will be up to approximately 500 people employed across the project by the end of 2018, with around 250 at the mine.

There will also be a significant amount of indirect jobs created in the supply chain, as local businesses grow and new investment is attracted to the area. The socio-economic impact assessment calculates the project will create 1,140 additional indirect jobs.

During the construction period of approximately 58 months the construction workforce is expected to peak at around 1,700.

The Skills Strategy focuses on growing the workforce required directly by York Potash, particularly for when the mine goes into production. This will help to maximise the economic benefits for the area, and have the knock-on effect of increasing the amount of skilled people for the supply chain and the wider business community.

### 2.2 WORKFORCE REQUIREMENT – PRODUCTION

The majority of the production workforce will be located at the mine in three departments – Operations, Engineering and Technical Services – led by the Deputy Mine Manager, Chief Engineer and Head of Technical Services respectively. Department Heads will report to the Mine Manager.

The Operations Department will consist of three sections – Production, Development and Infrastructure – and include mineworkers (miners, control room operators, winder and lamp room staff etc), skilled tradespeople and technicians, shift managers and supervisors. More experienced miners and tradespeople would work at the mineral face, with less experienced personnel starting on infrastructure work.

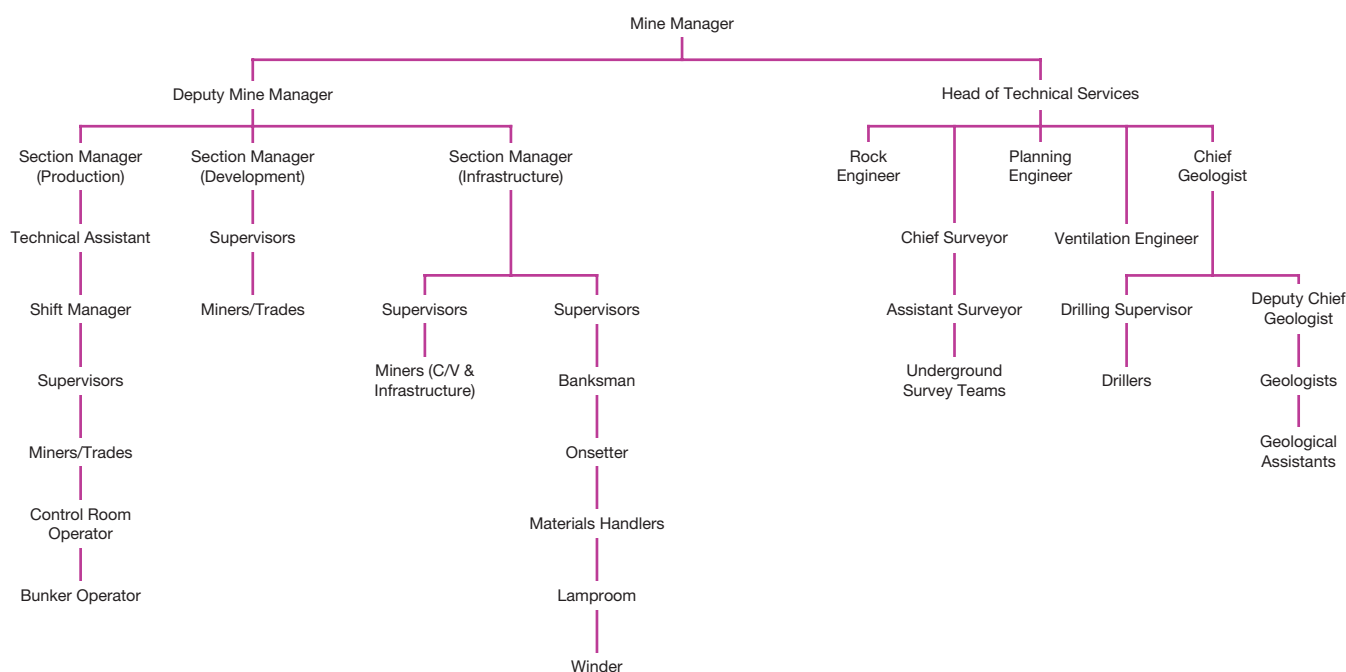
The Engineering Department will include mechanical, electrical and instrumentation engineers, planners and skilled tradespeople. Technical Services will consist of the geology and surveying sections, and rock, planning and ventilation engineers.

The MHF and harbour facility will have a management team consisting of a Plant Manager, Chief Engineer and Terminal Manager, reporting to the Operations Manager. Personnel will include engineers, skilled tradespeople, control room and process operators. In addition to the mine and MHF will be the support section based at the Head Offices of York Potash (currently located in Scarborough) including, Health Safety and Environment, Finance, Sales and Marketing, HR, Public Relations and IT.

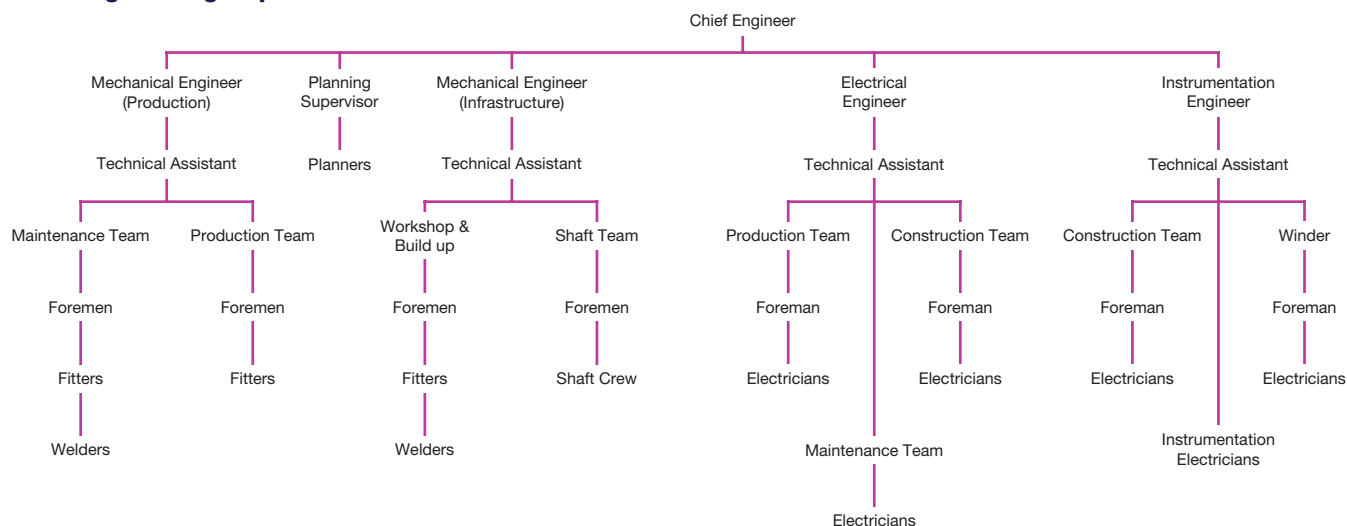
The requirements for each element of the production workforce are outlined in the following 'family trees', and provide an overview of the staffing structure and progression routes.

### Mine – Operations

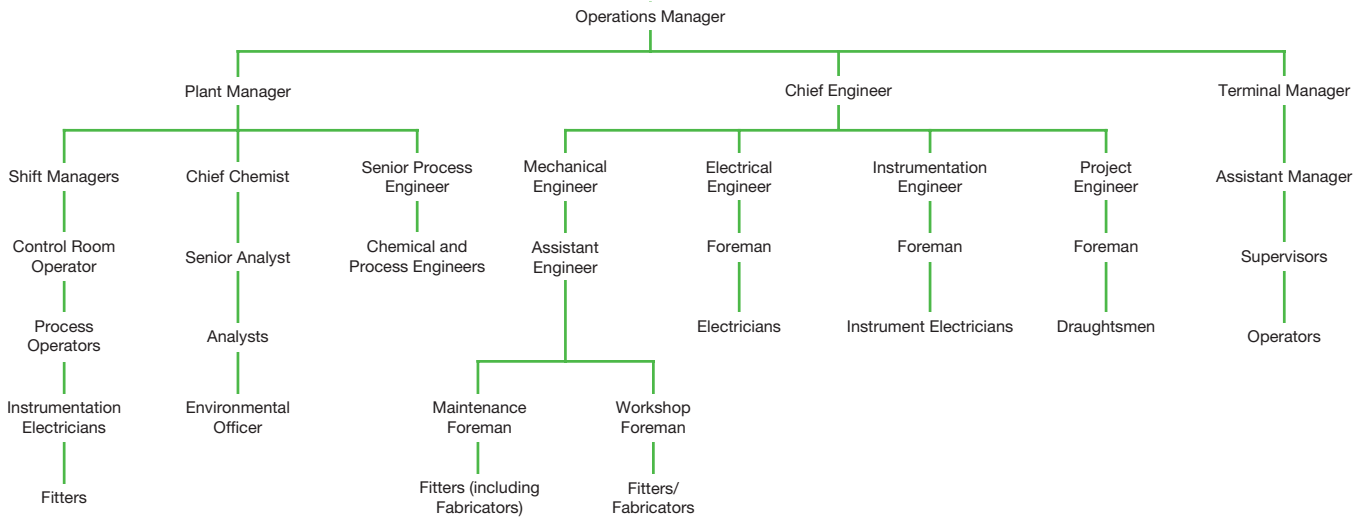
### Mine – Technical Services



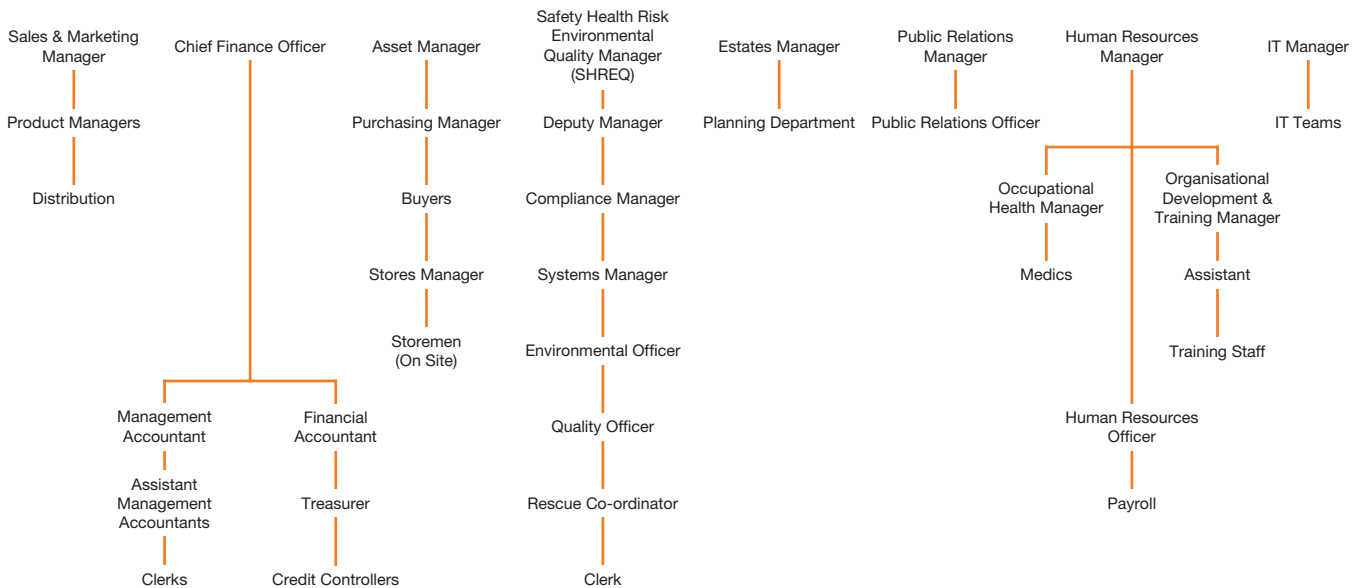
### Mine – Engineering Department



### Mineral Transport and Handling



### Head Office



### 2.3 EXPERIENCE, SKILLS AND QUALIFICATIONS

The amount of experience and type of qualifications required will differ according to the specific job role. Most positions, such as electricians or mechanical fitters for example, would not necessarily need experience specific to the mining industry. In addition a proportion of these positions would be made up of apprentices who would not need any prior experience and could receive on the job training.

A significant proportion of mine operatives (miners) would not need any previous mining experience. They would be selected on the basis of their transferable skills and aptitudes and could also be trained on the job. All staff will receive ongoing training to gain recognised qualifications relevant to their roles and to support their progression through the Company.

Across the Project as a whole around 10% of positions will require a Level 4 qualification such as a degree or masters. Approximately 55% of roles will be at Level 3, which is an A-Level standard or equivalent, and could be gained through work-based learning. The remaining 35% of jobs, such as mining or process operatives, will be Level 2 which is GCSE grade A–C or equivalent. The high proportion of Level 3 and above positions reflects the skilled nature of the workforce required. In other mining operations, the proportion of Level 2 positions will normally be higher.

As working in a zero harm environment requires good numeracy and literacy skills, all employees will be required to meet a minimum Level 2 standard of Maths and English. Those that have not reached this level would have to demonstrate the ability to do so, and will be supported through work-based training with York Potash.

**Table 2** gives an example of the types of roles that will require people with mining experience and those where specific mining experience will not be required. As can be seen the majority of Level 4 roles, especially at the mine, will require previous experience in the mining industry, as will a number of key Level 3 roles.

**Table 2: Examples of requirement for mining specific experience by job type**

Mining experience required (for all roles)	Mining experience not required (for a proportion of these roles)	
	Relevant vocational experience required	No specific vocational experience required
<b>Level 4+ roles</b>		
Section Managers	Chemist & analysts	
Mechanical & Electrical Engineers	MHF mechanical, electrical & process engineers	
Senior Geologists	Accountants	
Technical Assistants		
Surveyors		
Safety Officers		
<b>Level 3 roles</b>		
Machine operatives	Mechanical fitters	Engineering Apprentices
Shift Managers	Electricians	Graduate positions
Shaftmen	Winder Drivers	
Chargehands	Underground Geologists	
Beltmen	Clerks	
	IT	
	Fabricators	
	Accounts/Sales & Marketing	
<b>Level 2 roles</b>		
	Control Room Operators	Miners
	Administration	Equipment & Process Operators
		Drivers
		Cleaners
		Level 2 Apprentices



At a production level of 6.5mtpa, across all components of the Project, around 30% of workers will need to have prior mining specific experience. Of the remaining 70% a proportion will need prior vocational experience relevant to their post, but not necessarily in mining, whilst others could be trained without prior experience. **Table 3** sets out the estimated proportion and number of workers for each component who will require previous mining experience at a production level of 6.5mtpa.

**Table 3: Requirement for Mining Specific Experience by estimated number of employees**

Area	6.5mtpa Mining Specific Experience	6.5mtpa Mining experience not required
Mine	178 (40%)	257 (60%)
MTS	37 (40%)	53 (60%)
MHF	0	86 (100%)
Harbour	0	26 (100%)
Head Office	0	64 (100%)
<b>Total</b>	<b>215 (30%)</b>	<b>486 (70%)</b>

The focus of the Skills Strategy is to set out how the Company will source and train people for those roles not requiring mining experience, particularly the 310 mining related positions at the mine and the MTS.

As production ramps up to 13mtpa by 2024 the proportion of the workforce without prior experience would increase as there will be more opportunities for on-site training once the Project is operational, and senior positions will be increasingly filled by existing staff progressing within the Company. This will enable York Potash to fulfil the commitment of sourcing at least 80% of staff from the local area.

For the purpose of this strategy local labour is considered to be people that live within a 60 minute commute, although it is anticipated that many would live well within this zone.

## 2.4 WORKFORCE REQUIREMENT – CONSTRUCTION

Subject to receiving the necessary permissions, the target start date for construction is Quarter 1 2015. In total, construction of the mine and the associated infrastructure will take approximately 58 months, with the workforce currently estimated to peak at around 1,700 halfway through the construction period. This will install a Project production capacity of 6.5mtpa, with a much smaller construction phase following later to enable the Project to produce up to 13mtpa. The workforce requirement for this second phase will peak at approximately 375.

**Table 4** below sets out the peak requirement for element component of the Project, with the majority of the construction workforce either involved in the mine or the MTS.

**Table 4: Construction workforce peak**

Main Components	Peak Workforce
Mine	645
MTS	770
MHF	250
Harbour	175
<b>Total Peak</b>	<b>1,700*</b>

\*The sum of these peaks does not equal the total peak as each element of the Project peaks at a different time.

Whilst it is likely that many of the positions will be brought in by construction contractors for specialist activities such as shaft sinking, many other roles involved in site preparation, landscaping and above ground buildings could be filled by local labour. As a minimum York Potash will work with their construction contractors to target all of these positions, estimated to be around 35% of the total, at local people.

## 3.0 LOCAL LABOUR MARKET

In order to inform the Company's approach to skills development, it is necessary to understand the capacity of the local labour market to respond to its requirements. The socio-economic analysis undertaken by Quod, particularly 'Technical Note 2: Construction and Operational Workforce Profiles', provides an overview of the local labour market and the extent to which the skills required by York Potash are available.

### 3.1 LABOUR SUPPLY

#### Employment by Occupation

As detailed in the previous section, 70% of the workforce required to produce 6.5mtpa would not need to have experience that is specific to the mining industry. The Quod analysis demonstrates that the area within a 60 minute commute of the mine contains a significant amount of people (almost 6,500) employed in manufacturing occupations that are likely to possess the vocational experience which is transferable to mining.

It is important to note that many of the Level 2 roles, including mining and processing operatives that will make up around 35% of the workforce, could be sourced from a wider pool than this as they would not necessarily need to have vocational experience directly related to their positions.

The Quod analysis shows that there are approximately 2,400 people living locally that are employed in mining and quarrying, who could potentially have the necessary experience for some of the ~200 positions that require people with mining related experience. Whilst some of these roles could be filled locally, many could be sourced from across the UK and the global labour market, especially for the more senior positions.

As detailed in the previous section, there will be a significant amount of jobs available to people living locally during the construction period. With over 17,000 people living within 60 minutes travel time that currently work in construction, there should be an available supply of local labour for these roles.

#### Unemployment

There are relatively high levels of unemployment in the areas within 60 minutes travel time from the mine, which is particularly acute in some neighbourhoods in Redcar & Cleveland and Scarborough.

There are high numbers of Job Seeker's Allowance (JSA) claimants looking for work in occupations relevant to the Project. Even when only considering claimants in Redcar & Cleveland and Scarborough Borough, which both fall well within the 60 minute commute area, there are almost 3,000 people seeking jobs as process, plant and machine operatives, and a further 700 in the engineering trades.

#### Qualifications and Skills

The socio-economic assessment provides a mixed picture of local skill levels among the working age population. Whilst the population of the North York Moors National Park has higher rates of Level 4 qualifications and a lower rate of residents with no qualifications in comparison to national levels, the opposite is the case for Redcar & Cleveland and Scarborough where the population has relatively low skills levels.

Although this demonstrates a need to increase local skill levels generally, not too much should be read into these figures as they don't relate to the specific qualifications required by York Potash. As previously stated all York Potash employees will be supported to gain the qualifications relevant to their position through work-based learning, if they have not already been gained prior to employment.

There is a continuing challenge however, both at a local and national level, of increasing the number of young people studying science, technology, engineering and maths (STEM) related qualifications. There is some evidence, mainly at a national level, that the skills pipeline is not producing the supply of engineers and technicians required by the current engineering and manufacturing sector. A key element of this is that not enough young people are studying STEM subjects, or necessarily pursuing a STEM related career even if they do.

In their report 'Working Futures: 2010–2020', the UK Commission for Employment and Skills (UKCES) forecast a demand for around 1.9 million workers with engineering skills up to 2020, of which almost 90% are required to replace an ageing workforce. This equates to over 87,000 new workers a year qualified to Level 4+ and 69,000 qualified to Level 3. According to Engineering UK, the UK produces less than half number of required engineers at Level 4 and less than 40% at Level 3.

There is anecdotal evidence of this issue locally, with some businesses requiring staff with skill sets similar to York Potash reporting that they are finding it increasingly difficult to recruit people with the qualities they need.

In response to this there are a number of collaborative business-led initiatives to promote engineering as an exciting and rewarding career choice, increase the uptake of apprenticeships, and to align education provision to the needs of the local economy. Examples include the recent announcement of a University Technical College in Scarborough with an advanced engineering specialism, and the Sembcorp Skills Development Programme. Sections 4 and 5 set out how York Potash are already developing schemes to increase the supply of young people that the Company and wider business community needs, and how this will expand in the future.

### **Local interest in working for York Potash**

There has been a great deal of local interest in working for the Company, with over 1,500 expressions of interest and CV's submitted via the York Potash website. This includes people who want to work for the Company, either in construction, mining operations or both. There is a mix of skills, experience and qualifications, ranging from school leavers, the long-term unemployed, skilled and unskilled people with limited mining experience; to those with a background in the mining industry.

### **3.2 SUMMARY OF THE LOCAL LABOUR MARKET**

- Significant numbers of people are currently working in occupations and industrial sectors with a skillset transferable to the mining industry.
- A high volume of unemployed people are seeking the types of roles which will be required by York Potash.
- A large amount of people have expressed an interest in working for York Potash.
- Some local businesses requiring similar skills to York Potash have reported problems recruiting staff, including a lack of young people with the skills and qualities they require.
- Local businesses have since started to work together to address these issues.
- It is clear there is huge potential in the local labour market that will enable the Company to fulfil its commitment to sourcing a local workforce, although a significant amount of work needs to be done to realise this potential. Sections 4 and 5 outline the approach that York Potash will take not only to meet its own recruitment needs, but to potentially generate an oversupply of skilled workers that will benefit the area as a whole.

## 4.0 THE YORK POTASH APPROACH & ACTIONS TO DATE

### 4.1 YORK POTASH PHILOSOPHY

The core value of the Company is an absolute commitment to zero harm and this will be achieved simply by – “doing the right things and doing them right”.

In all aspects of the business the Company will demonstrate:

- Commitment to safety, environment and quality
- Fairness
- Honesty
- Respect

Employees will receive induction and ongoing training aligned to this approach from day one and only individuals with the right attributes will be successful in gaining employment. Beyond the minimum of the right level of technical skill is the need for people with the right attitude, integrity and good communication skills.

York Potash expects – and is working proactively – to source the majority of the workforce locally, and the aim is to recruit at least 80% of personnel from the local labour market by full production. Local is defined as commutable distance from the mine (approximately 60 minutes driving time).

The rationale for the recruitment of predominantly local labour reflects the commitment to maximising the local economic benefits of the Project. It also recognises that a local workforce helps to deliver a better Project, in terms of staff commitment and retention, and an understanding of the local area.

### 4.2 GROWING A LOCAL WORKFORCE

The local labour market has the potential to provide the vast majority of the labour required for the future York Potash workforce, and the implementation of the activities involved in the Skills Strategy will increase the supply of people with the skills and qualities needed by the Company.

An Education and Skills Manager was appointed in June 2012 to lead the approach to maximising local employment. This person is the link between the Company and education institutions, local authorities, other agencies with a strategic responsibility for skills and economic development, and the business community.

The Skills Strategy has four main themes, which are outlined below, together with examples of how this is already being implemented.

#### **i. Attract – Raise awareness of the Project and the range of career opportunities.**

The starting point is making people aware of the exciting and rewarding careers that they can have with York Potash, the skills and qualifications required, the potential routes to gain these, and the entry-points into the Company. By working in partnership with a range of relevant organisations, this message will be delivered to young people and adults.

Many of the jobs involved in both mining and processing will require a good background in Science, Technology, Engineering and Mathematics (STEM) subjects. Therefore, as a priority, more young people need to study STEM subjects post-16, both at level 3 and at university.

Generating an interest in science, and its practical applications, ideally has to start at a young age, preferably Key Stage 2. The Company will work with the education sector and businesses to increase demand for the sorts of courses and qualifications they require, ultimately leading to more young people becoming engineers or technicians. This will also benefit local businesses with a need for STEM related qualifications.

Adults with transferable skills will also be targeted, with particular focus on the unemployed and under-employed.

**Examples of activity to date include:**

- Launch of Potash Prospects

This is the York Potash careers guide, which is available in hard copy and to download from the website. This has been produced to set out the career opportunities at York Potash and the skills and qualities the Company requires. Over 100 education professionals attended the launch in Whitby in September 2012, and it has been widely distributed and accessed since.

- Scarborough Engineering Week

The Company has been the headline sponsor for Scarborough Engineering Week, which is aimed at promoting engineering as an exciting and rewarding career choice, for the last three years. In addition the Company support a wide variety of initiatives delivered by local schools and clubs, such as Rotary Club young technician tournaments.

- Career Presentations and Events

The Education and Skills Manager has delivered a series of careers talks directly to over 4,000 students in primary and secondary schools, as well as further and higher education institutions over the last two years. The Company also exhibited at careers fairs across the area targeted at adults.

**ii. Train – Work with education institutions and other stakeholders to enrich the relevant curriculum areas, which align with the specific requirements of York Potash and wider businesses community.**

This will both contribute to attracting people to the sorts of careers created at York Potash, and lead to an increase in the number of people achieving the qualifications required. One aspect involves giving context to the curriculum, particularly (although not exclusively) the STEM subjects in primary, secondary, further and higher education. The Education and Skills Manager has engaged with a broad range of institutions, and the sector is very keen to give their students the opportunity to practically apply the knowledge they gain in an education setting.

Another element of this strand is to work with training providers to develop courses that are tailored specifically to the needs of the Project. This will ensure that good quality, relevant provision is accessible to local people.

**Examples of activity to date include:**

- Developing learning resources

York Potash has developed a range of learning resources and delivered these in a classroom setting to enrich the curriculum, particularly in the sciences and geography. Twelve schools and colleges have taken part in these projects and competitions, such as Digging Deeper into STEM. In addition to developing resources that sit alongside the core curriculum, the Company has agreed to participate in wider initiatives. For example, ten York Potash employees have agreed to become STEM ambassadors.

- Site visits

The Company has hosted a number of site visits from schools and universities at the proposed mine site, temporary drilling rigs and core store.

- Membership of education and skills advisory boards

The Company is represented on the Redcar and Cleveland College STEM Employer Board, and the York, North Yorkshire and East Riding LEP Employability and Skills Board.

- Developing bespoke training provision

In addition to supporting and enriching the core curriculum with a range of education institutions, the Company has also started to develop bespoke courses to grow the specific skill set that York Potash requires. This includes apprenticeships, mine operatives and tradespeople with transferable skills. Over the next four years the Company envisages working with a range of providers to train around 300 people.

York Potash has met with the organisations listed in **Table 5** below and agreed to work together to enrich the existing STEM curriculum, shape future provision and provide employment opportunities for local residents.

**Table 5**

Schools, Further & Higher Education, other training providers	Strategic/Other
Whitby Community College	Scarborough Borough Council
Caedmon School	Ryedale Council
Eskdale School	North Yorkshire County Council
Redcar and Cleveland College	Redcar and Cleveland Borough Council
Derwent Training Association	York, North Yorkshire and East Riding LEP
Hull University	Tees Valley LEP
Teesside University	Jobcentre Plus
University of Exeter	Skills Funding Agency
Leeds University	National Apprenticeship Service
York University	North East Yorkshire Geology Trust
Durham University	Institute of Physics
Open University	Engineering Development Trust
Stakesby School	NYBEP
Fylingdales School	Rotunda Museum
Fyling Hall School	Construction Industry Training Board
Scarborough College	Groundwork North Yorkshire
Scarborough 6th Form College	National Careers Service
Scalby School	Mines Rescue Service
Lady Lumleys School	Mineral Products Qualification Council
Malton School	NEPIC
Yorkshire Coast College	Proskills
Teesside Technical Training Group	
Yorkshire Coast Enterprise	
Hull College	
East Riding College	
York College	
Tyro Training	
Selby College	
East Whitby School	
Bishop Burton College	
Nunthorpe Academy	
Wykeham School	
Prior Pursglove College	
Ruswarp School	
Graham School	
St Augustines School	
Middlesbrough College	

All the training providers engaged want to increase the employability of students and improve their offer to local businesses. York Potash has the potential to enable providers to scale up their plans, which will not only ensure that new skills requirements are met, but will also benefit existing businesses as the quality and quantity of training provision is increased.

### **iii. Recruit – Provide employment routes into York Potash, targeting young people and adults.**

York Potash is committed to providing employment opportunities for local people through robust and transparent recruitment processes, pre-employment training programmes, work-based training including apprenticeships and provision targeted at adults with transferable skills, work experience, placements for undergraduates and jobs for new graduates.

Work has already started with Redcar & Cleveland Council and Scarborough Borough Council to utilise their job brokerage services Routes to Employment and Scarborough Jobmatch, in order to maximise the employment of local people both during construction and for when the Project moves into production. This has included discussions with Jobcentre Plus and the National Careers Service.

There is a firm commitment to taking on Apprentices. The Company views an apprenticeship as a good start to a long career with York Potash, and will always aim to keep apprentices employed by the Company once their training is complete. Five apprentices have already been employed by York Potash in finance, IT and administration roles. Other apprenticeship positions will be created in all areas of the business over the next five years, including technical roles in preparation for mining operations and processing. The recruitment of Apprentices will not be restricted to the next five years, this is the focus of this strategy, and the Company will have an ongoing apprenticeship programme.

The Company has already selected Teesside Technical Training Group as its preferred apprenticeship provider for engineering technicians. They will work, together with other providers, to deliver training for up to 50 engineering apprentices over the next five years.

There will also be routes into the business for new graduates from the local area, particularly those with degrees in Engineering and Geology, with a number of suitable roles already filled and future opportunities identified.

As well as specific programmes aimed at creating entry points into York Potash, the Company will also target local people for all new posts as part of general recruitment. All vacancies will be advertised locally and via the website. In most instances there will be a preference to recruit directly for all positions, however for harder-to-fill or more specialist roles recruitment companies will be engaged. In the first instance the Company will continue to work with locally based recruitment companies.

#### **Examples to date:**

- York Potash currently employs almost 50 people that are based at the Scarborough Office. Even though many of these are highly specialist positions, 60% have been sourced from the local labour market.
- York Potash currently employs five apprentices who are all progressing well. Three (one in finance and two in administration) have been with the Company since November 2012 and all have passed their level 2 qualifications and have moved onto level 3. A fourth apprentice, has been with the IT department since February 2013, and was recently awarded Apprentice of the Year by his training provider. The fifth started in July 2014, and recruitment is underway for another. The company is committed to supporting them all to progress their long-term careers with York Potash.
- York Potash Undergraduate Programme has been launched and five local young people studying engineering, geology and environmental science are receiving bursaries and paid summer placements for the duration of their courses. The aim is to offer participants a job following their successful completion of the project. The first of these has recently graduated and is now working for the Company.
- Six young people in either Year 10 or 11 have spent time on work experience during the last year, and the Company makes every effort to accommodate undergraduate and new graduates on work placements whenever possible. A Business Management student spent a year with York Potash on an industrial placement and is now a permanent employee.
- The Company is actively encouraging local people to express an interest in working for us, via an online submission, and is receiving around 50 of expressions of interest a week.

**iv. Retain – Support continuous professional development of all staff, enabling workers to progress their careers within York Potash.**

Training and career development will form a central part of working at York Potash. The apprentices, junior tradespeople and graduates the Company employs will have the opportunity to go on to become the managers and fulfil senior roles in the business in years to come. All York Potash staff will benefit from a programme of Continuous Professional Development and be supported to gain qualifications that are relevant to their roles and that will help them to progress in their careers.

The Company recognises that it is a poor return to lose talent, having spent both time and effort in attracting and developing it. Therefore, finding, developing and, most importantly, retaining talent will be a strategic priority.



## 5.0 ACTION PLAN

The following table details priority actions and when they will be delivered. This is not an exhaustive list of activities, but an indication of what is currently planned. The Company remains open to good ideas to achieve its goals. York Potash is committed to co-investing in local skills development and will look to source public funding to maximise the benefit of its approach wherever possible. The Company recognises the value of working in partnership with the education sector, strategic agencies, businesses, and other bodies to deliver the following objectives.

### Objective 1: Attract – Raising awareness and Project and career opportunities

Outcome: Increased demand for the courses and qualifications York Potash (and the wider business community) require

Action	When
Attend career events aimed at young people and adults	Ongoing
Programme of career talks & seminars in educational institutions	Ongoing
Quarterly York Potash information sessions targeted at adults – focus on the opportunities during construction and operations	From January 2015
Scarborough Engineering Week	October 2014
Short careers information film	2015
Strengthen relationships & joint working with organisations with shared aims, particularly promoting STEM subjects	Ongoing

### Objective 2: Train – enrich the education curriculum and align training provision

Outcome: Increase the supply of people with the skills and qualifications required

Action	When
Fund NYBEP over a 10 year period to deliver STEM enrichment activities in secondary schools	From commencement of construction
Fund North Yorkshire County Council and Redcar and Cleveland District Council to deliver a two year STEM enrichment programme in primary schools	From commencement of construction
Deliver STEM Ambassador activities in partnership with NYBEP	Ongoing
Continue to design and deliver curriculum enriching resources and activities, particularly in the science subjects	Ongoing
In addition to apprenticeships develop a programme of bespoke work-based training for technical positions and mineworkers, for approximately 250 people.	Q1 2015 Delivery from 2017
Develop a transition training programme for tradespeople, for example conversion courses for domestic electricians.	Q4 2015
Continue to establish and develop relationships with higher education institutions, particularly those delivering courses relevant to York Potash. Activity will include enriching current and influencing future courses, providing projects and placement opportunities, and potential employment for new graduates.	Ongoing

### Objective 3: Establish employment routes into the Project

Outcome: More local people employed by the Company

Action	When
Take on Apprentices in all areas of the business. We will provide around 50 Apprenticeship opportunities over the next five years, including office based roles, as well as skilled trades in preparation for mining operations.	Ongoing First cohort of approx. 20 technical positions in Q3 2015
Continue to deliver the York Potash Undergraduate Programme and employment for new graduates. This will provide at least 15 opportunities over the next five years.	Ongoing
Fund Scarborough Borough Council and Redcar and Cleveland Borough Council to develop mechanisms to identify potential recruits for construction and operations	Q1 2015
Train 50 people with transferable skills to become tradespeople in mining operations.	Delivery from 2016

### Objective 4 : Support continuous professional development

Outcome: develop and retain a skilled workforce, enable progression within the business

Action	When
Training provision to ensure the existing workforce works in a safe and efficient manner	Ongoing
Provide access to broader training and career development opportunities	Ongoing

## 5.1 KEY PERFORMANCE INDICATORS

### Primary indicators

- % of the workforce sourced from the local labour market
- Number of Apprentices in place
- Opportunities for new graduates
- Number of people achieving qualifications
- Number of unemployed people going on to achieve employment with York Potash

### Secondary indicators

- Education institutions actively engaged with the Company
- % of young people progressing into STEM related study post-compulsory education
- Work experience and placement opportunities provided
- Number education professionals engaged in CPD

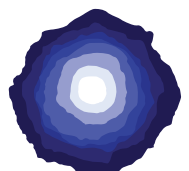
## **A3 YORK POTASH SUPPLY CHAIN ENGAGEMENT STRATEGY**

# **YORK POTASH**

## **LOCAL SUPPLY CHAIN ENGAGEMENT STRATEGY**

September 2014  
Version 1

**YORKPOTASH**  
A Sirius Minerals Project





# 1.0 INTRODUCTION

The York Potash Project is a proposal to build a new potash mine south of Whitby and the associated infrastructure required to transport the mined polyhalite and granulate it in Teesside. It also involves the development of harbour facilities to export the product to a global market.

This proposed £1.7 billion investment, targeting the world’s largest and highest grade resource of polyhalite, has the potential to help the Company become a leading global potash producer, and generate exceptional national and local economic benefits.

## 1.1 SUPPLY CHAIN COMMITMENT

York Potash is committed to working in a way that ensures that the Project generates benefits for the local area, and right from the beginning has stated its intention to source local labour and use local businesses wherever it is practical to do so.

The Company, and the major contractors it engages, will need a variety of goods and services both during construction and when the Project is operational. York Potash is committed to giving local businesses the opportunity to become suppliers, where the quality, price and delivery times are the same or comparable to other alternatives. The Company’s contractors will be encouraged, as part of their tender obligations, to use local suppliers.

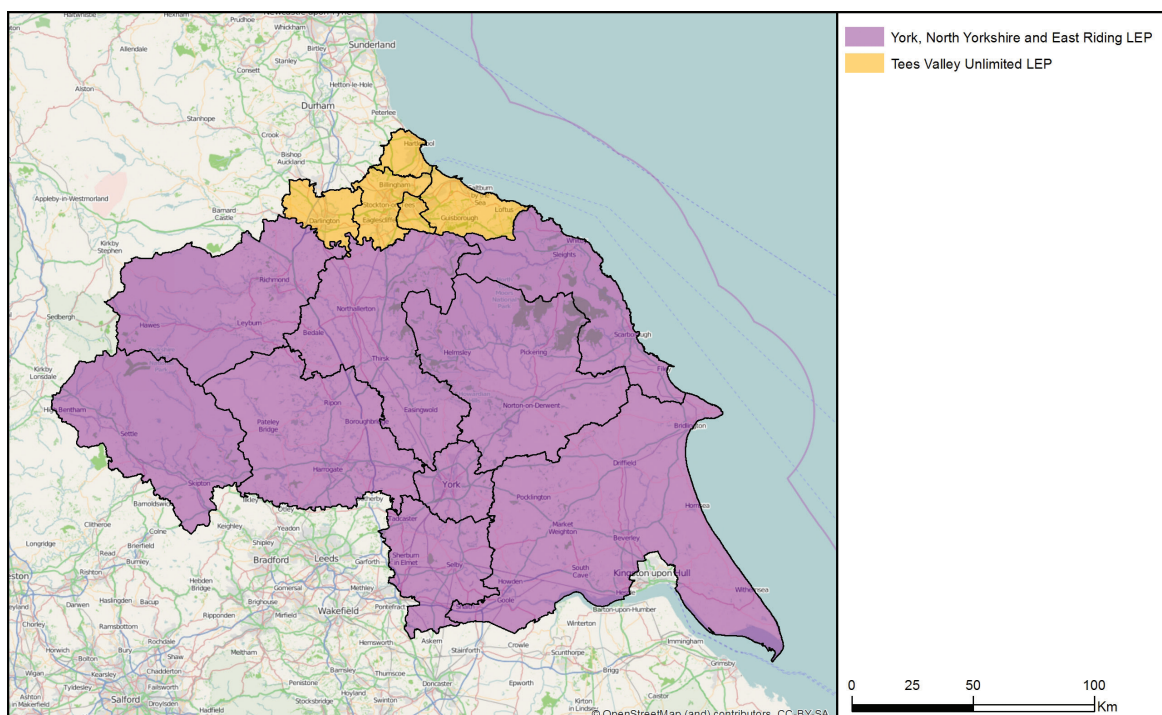
Local, in the context of this document, is broadly defined as the area within the geographic footprint of the two Local Enterprise Partnerships (LEPs) covering Tees Valley, and York, North Yorkshire and East Riding, illustrated in **Figure 1** below. LEPs are partnerships between local authorities and businesses that have been given the responsibility by Government for regional economic development.

## 1.2 PURPOSE OF THIS DOCUMENT

This Supply Chain Engagement Strategy outlines the Company’s approach to providing opportunities for local businesses and it should be noted that this is an outline strategy which will be further developed with key stakeholders subject to planning approvals and as the Project moves forward.

Section 2 provides an overview of the scale and scope of the goods and services that York Potash and its contractors are likely to require. Section 3 looks at the local industry base and its potential to meet this requirement, whilst Sections 4 and 5 set out the Company’s approach to local supply chain engagement, including what activities have taken place to date and priority actions for the future.

**Figure 1: LEP areas**



## 2.0 LOCAL SUPPLY CHAIN INVESTMENT AND OPPORTUNITIES

Both the investment in construction and ongoing supply chain expenditure during production will provide significant opportunities for local businesses, an overview of which is provided below.

### 2.1 CONSTRUCTION

The initial construction period of up to 58 months will enable a production capacity of 6.5 million tonnes per annum (mtpa) and involve expenditure of almost £1.4 billion. A further investment of £300 million will install the equipment and infrastructure required for ramping up production to 13mtpa. Subject to receiving the necessary permissions construction is targeted to begin in Quarter 1, 2015.

**Table 1** below outlines the construction by each component of the Project, which shows the mine accounting for almost half, followed by the mineral transport system, materials handling facility and harbour.

**Table 1: Breakdown of initial construction investment**

Component	GBP millions
<b>Initial development</b>	
Mining & shafts	607
MTS	438
Materials Handling Facility	92
Harbour	174
Power and utilities	82
<b>6.5mtpa</b>	<b>1,392</b>
<b>Expansion</b>	
Mining	136
Infrastructure	169
<b>Full capacity – 13mtpa</b>	<b>1,697</b>

As detailed in the York Potash Economic Impact Report, Office of National Statistics Input-Output Tables show that 60% of construction expenditure goes on materials, equipment and other parts of the supply chain. This means that supply chain expenditure over the total construction period would be £1 billion. Approximately 65% of supply chain expenditure would remain within the construction sector, with 20% on manufacturing and the remainder split between energy and business services.

Due to the specialist nature of some of the construction techniques, the main contractors engaged directly by York Potash will be large UK companies or those based internationally. These tier 1 contractors will need to develop a supply chain to provide the goods and services they will need, and this will provide the major opportunity for local companies.

**Table 2** below gives examples of some of the goods and services that will be required during construction and that could potentially be provided by companies in the local area.

**Table 2: Example of local supply chain opportunities during construction**

Construction sector	Other sectors
Concrete and materials	Catering
Steel products	Site security
Cabling and electrical contractors	Training
Earthworks and excavation contractors	Cleaning services
Plant and equipment hire	Transport and logistics
Mechanical contractors	IT and communications
Framework	Printing and copying
Roads and fencing	Vehicles
Roofing, floor and wall covering	Recruitment
Architectural and design services	Personal Protective equipment

## 2.2 PRODUCTION

There will also be significant ongoing opportunities for local business as the Project moves into production. As detailed in the Economic Impact Report, the Company estimates that at a production level of 6.5mtpa supply chain expenditure on the goods and services required to operate the mine will be approximately £110 million per annum, rising to over £210 million at full production of 13mtpa.

The Company estimates, using Standard Industrial Classifications, that just over 55% of supply chain expenditure would be spent on manufacturing products and services, just under 40% on power, transport and utilities and the remainder on business services and administrative costs. A priority action moving forward will be to further define the detail of the Projects operational supply chain requirement, particularly those goods and services most likely to be locally available.

Whilst there will be a requirement for specialist equipment and services that may be more likely to be provided by companies located outside the target engagement area, the opportunities for local business will be extensive. Initial analysis indicates that over half of the forecasted expenditure on manufacturing products and services could be on purchases from locally sourced companies.

In addition to manufactured products, the Company will require (and is already using) a range of other services such as office provisions, training and recruitment, security, catering, and transport.



## 3.0 LOCAL CAPACITY

The extent to which the Company and its main contractors utilise local businesses depends in part on the capacity of the local industrial base to be able to provide the goods and services that are required, in terms of safety, quality, price and delivery times, in comparison to companies from outside the area.

### 3.1 THE LOCAL INDUSTRY BASE

York Potash has made good progress in gaining an understanding of the capacity of the local business community through working with LEPs and local authorities, building relationships with business networks, and by enabling businesses to register their interest in working with the Company through an online supplier registration form.

Further increasing the knowledge of the local business base and developing these relationships further is a priority action moving forward. However, a clear picture is emerging that there are a significant number of businesses in the LEP areas with the potential to become suppliers and many have already expressed an interest in doing so.

### 3.2 SUPPLIER REGISTRATION

As previously stated there has been a facility on the York Potash website for local businesses to express their interest in becoming suppliers across a range of general categories including:

- Manufacturing
- Engineering and mining
- Accommodation and catering
- Logistics
- Safety and security
- Professional services (planning, creative and corporate)
- Training and recruitment
- Safety and security
- Site works and plant hire

The supplier form has been active for two years and in this time 925 businesses have registered their interest, with 350 being located in the North Yorkshire and Teesside area.

## 4.0 THE YORK POTASH APPROACH & ACTIONS TO DATE

York Potash has always expressed a commitment to maximising the local economic benefits of the Project, including providing opportunities for local businesses.

### 4.1 BUILDING RELATIONSHIPS

The Company recognises that the potential for local businesses to realise these opportunities can be greatly enhanced by working closely with a range of stakeholders responsible for business development and economic growth. Whilst York Potash can state its commitment to sourcing supplies locally and promote these opportunities on its own, this can be amplified by LEPs, councils and business networks who can also provide support to build the capacity of the local business community.

The Company has developed good relationships with a range of organisations from the private and public sector, including those listed in **Table 3** below, specifically in regard to local supply chain engagement. This has involved meetings, presentations, project updates to members, and discussions focused on the development of a supply chain strategy.

**Table 3: Engagement with stakeholders**

LEPs and Local Authorities	Business Networks
York, North Yorkshire and East Riding LEP	York and North Yorkshire Chamber of Commerce
Tees Valley Unlimited LEP	North East Chamber of Commerce
Redcar and Cleveland Council	Federation of Small Businesses
Scarborough Borough Council	Confederation of British Industry
Ryedale District Council	North East Process Industry Cluster
East Riding of Yorkshire Council	Teesside Engineering Network
North Yorkshire County Council	Scarborough Ambassadors

### 4.2 OBJECTIVES

This initial strategy has been informed by meetings and discussions with these stakeholders and will be further developed and delivered in partnership with them. There is agreement that this would focus on delivering a range of activities that would meet the following objectives:

- Ensure that businesses in the region are aware of opportunities and know how to respond.
- Ensure that businesses are aware of the standards required to become suppliers to York Potash and its contractors, and have the capacity to meet these standards.
- Identify potential suppliers in the area.
- Monitor the extent of local supply chain engagement.

### 4.3 PROGRESS TO DATE

York Potash is currently preparing to invite a shortlist of companies to tender for parts of the construction work. Efforts to promote local supply chain engagement in this have demonstrated a shared commitment with stakeholders and a great willingness to work together.

Given the specialist nature of the works being tendered, including the shaft sinking at the mine, and the construction of the 23 mile tunnel and associated shafts for the mineral transport system, the specialist contractors being invited to tender are either international businesses, or large UK companies.

York Potash has worked closely with the stakeholders in **Table 3** to put together and promote a supplier registration form for local business to express their interest in providing goods and services to Tier 1 contractors. The information from the online form will be captured on a database that will be provided to the companies invited to tender. The tender documentation makes clear that contractors should consider using local businesses. There are over 60 supplier categories, with examples shown on **Table 1**. This opportunity has been shared with thousands of businesses across North Yorkshire and the Tees Valley.

As well as engaging local businesses for potential future opportunities, York Potash is already working with local companies. Since April 2011 York Potash has spent almost £7.5 million on goods and services provided by businesses in Teesside and North Yorkshire including site preparation and construction services, engineering consultancy, accommodation and catering, recruitment, training and office equipment.

This figure only includes contracts directly between York Potash and local suppliers and excludes situations in which a local business has been sub-contracted by a company from outside the area, which has occurred extensively especially during the exploratory drilling programme which involved significant investment by the Company.

## 5.0 PRIORITY ACTIONS

The Company has made it clear that it has a commitment to local supply chain engagement, encourages its large contractors to use local suppliers, and is already putting measures in place to provide opportunities. The priority moving forward is to work together with stakeholders to develop a detailed supply chain engagement implementation plan that meets the objectives set out below.

A Local Supplier Engagement Group will be formed to take this forward and include representation from YNYER LEP, TVU LEP, Chamber of Commerce, Federation of Small Businesses, Redcar and Cleveland Borough Council, Scarborough Borough Council and Ryedale District Council.

Whilst some of the actions would be for York Potash to implement, others would be more appropriately delivered by those stakeholders listed above. The types of activity listed under each objective are indicative and not exhaustive, and have been informed by discussions with LEPs, local authorities and business networks.

### 5.1 ENSURE THAT BUSINESSES IN THE AREA ARE AWARE OF OPPORTUNITIES AND KNOW HOW TO RESPOND

- York Potash to provide a detailed breakdown, as far as this is possible, of the types of goods and services that are forecast to be needed, and the timeframe when they will be required. This would cover construction and production, although would not be covered in one document but rather shared with stakeholders as the details are known.
- Stakeholders, together with York Potash, to clearly communicate and disseminate information about opportunities to local businesses.
- Continue with the programme of raising the awareness of local businesses of potential opportunities through a series of talks, presentations and events.
- Ensure that the methods of registering an interest, or formally responding to opportunities, are accessible and user-friendly.

### 5.2 ENSURE THAT BUSINESSES ARE AWARE OF THE STANDARDS REQUIRED TO BECOME SUPPLIERS TO YORK POTASH AND ITS CONTRACTORS, AND HAVE THE CAPACITY TO MEET THESE STANDARDS

- Information sessions, demystifying the sector for new entrants.
- Workshops and capacity building sessions delivered by stakeholders to prepare businesses for potential opportunities, covering a range of topics such as gaining accreditations, etc.
- York Potash to provide a list of required industry standards and accreditations, as far as it is possible to do so.

### 5.3 IDENTIFY POTENTIAL SUPPLIERS IN THE AREA

- Enable businesses to register on a supplier list, either expressing a general interest or to a specific call.
- Provide access to supplier database for Tier 1 contractors.
- Assessment of supplier 'readiness' and provision of additional support.

### 5.4 MONITOR THE EXTENT OF LOCAL SUPPLY CHAIN ENGAGEMENT

- Set up the Local Supplier Engagement Group to develop the strategy and implementation plan, and to monitor its delivery.

# YORK POTASH

## Economic Impact Report

October 2014

