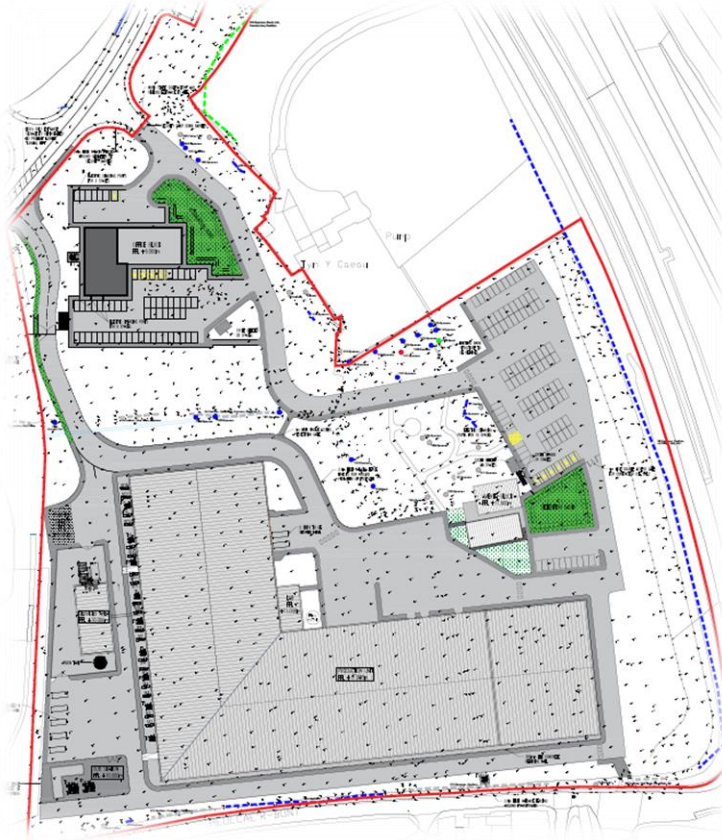


Metal Processing Facility, Junction 38, Margam, SA13 2NW



Health Impact Assessment

784-B032061

5th April 2022

PRESENTED TO

Sandvik Osprey Ltd

Red Jacket Works
Milland Road
Neath
SA11 1NJ
United Kingdom

PRESENTED BY

NALO, Tetra Tech

Executive Park,
Avalon Way,
Anstey,
Leicester,
LE7 7GR

P: +44 (0)116 234 8000

E: NALO.UK@tetrattech.com

tetrattechurope.com

DOCUMENT CONTROL

Document:	Health Impact Assessment
Project:	Metal Processing Facility, J38, Margam
Client:	Sandvik Osprey Ltd
Job Number:	784-B032061
File Origin:	O:\Acoustics Air Quality and Noise\Fee Earning Projects

Issue:	1	Status:	First Issue
Date:	12 th November 2021		
Prepared by: Lee Rawson-Gill Environmental Consultant		Checked by Matthew Smith Principal Environmental Consultant	Approved By: Nigel Mann Director
Description of revision: First Issue.			

Issue	2	Status:	Second Issue
Date:	1 st February 2022		
Prepared by: Lee Rawson-Gill Environmental Consultant		Checked by Matthew Smith Principal Environmental Consultant	Approved By: Nigel Mann Director
Description of revision: Updated site plan.			

Issue	3	Status:	Third Issue
Date:	5 th April 2022		
Prepared by: Lee Rawson-Gill Environmental Consultant		Checked by Matthew Smith Principal Environmental Consultant	Approved By: Nigel Mann Director
Description of revision: Minor amendments.			

EXECUTIVE SUMMARY

This report presents the findings of a Health Impact Assessment for the proposed erection of a metal processing facility, offices, amenity building (Use Classes B1, B2 and B8) and other associated infrastructure on a site situated to the northwest of Junction 38 of the M4 in Margam, Port Talbot.

Effects on health are considered to be one of the most important effects for any planning application with particular considerations for any long-term effects. Promotion of healthy and safe communities which support the needs of local health and well-being has been a key consideration throughout the design of the scheme. In addition, the proposed development will provide a significant number of jobs, which is also a benefit to the area. Jobs will be created, both directly and indirectly, through the construction of the project and, once operational, 150 direct jobs will be created.

A review of the potential for the development to have health effects for both future users of the site and surrounding occupants has been undertaken. This assessment concludes that there are no significant adverse effects to health as a result of the scheme. In addition, the proposed development will provide a number of jobs, which is also a benefit to the area. Jobs will be created, both directly and indirectly, through the construction of the project and, once operational, 150 direct jobs will be created.

TABLE OF CONTENTS

1.0 INTRODUCTION	5
2.0 POLICY AND LEGISLATIVE CONTEXT	6
2.1 Planning And Policy Guidance.....	6
3.0 PUBLIC HEALTH PROFILE	8
3.1 Lifestyles	8
3.2 Social and Community Influences on Health	8
3.3 Living / Environmental Conditions Affecting Health	9
3.4 Economic Conditions Affecting Health	11
3.5 Wellbeing	12
4.0 ASSESSMENT METHODOLOGY	15
4.1 Health Impact Assessment Approach and Methodology	15
4.2 Aims and Objectives of Health Impact Assessment	16
5.0 ASSESSMENT OF EACH IDENTIFIED HEALTH DETERMINANT	19
6.0 CONCLUSIONS	25

LIST OF TABLES

Table 3-1 Earnings by place of residence (2021)	11
Table 3-2. Office for National Statistics Data on Qualifications	13
Table 3-3. Office for National Statistics Wellbeing Survey.....	13
Table 4-1. Health Determinants considered in the HIA.....	17
Table 5-1. Summary of Proposed Development.....	19
Table 5-2. Summary of Health Effects	20
Table 5-3. Rapid Health Impact Assessment.....	22

APPENDICES

APPENDIX A - REPORT TERMS & CONDITIONS	26
---	-----------

1.0 INTRODUCTION

This report presents the findings of a Health Impact Assessment for the proposed erection of a metal processing facility, offices, amenity building (Use Classes B1, B2 and B8) and other associated infrastructure on a site situated to the northwest of Junction 38 of the M4 in Margam, Port Talbot.

Definition of Health

The constitution of the World Health Organisation (WHO) defines health as not only the absence of disease or infirmity, but also as 'a state of complete physical, mental and social wellbeing.' It emphasises that all people have right to the highest attainable standard of health and wellbeing, stating that health is 'one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.'

It is now accepted that an individual or community's health is determined not only by the availability and quality of healthcare services, but that a range of economic, social, psychological and environmental influences play an equally important role.

2.0 POLICY AND LEGISLATIVE CONTEXT

2.1 PLANNING AND POLICY GUIDANCE

National Policy

Planning Policy Wales 11 (PPW11) (February 2021), policies and guidance for development within Wales. PPW supports the role of planning to create healthy, inclusive communities by supporting local strategies to improve health, social and cultural wellbeing for all and by working with public health leads and health organisations to understand and take account of the health status and needs of the local population.

Section 1 of PPW sets out the purpose of the PPW and states that:

“The primary objective of PPW is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the Well-being of Future Generations (Wales) Act 2015 and other key legislation and resultant duties such as the Socio-economic Duty. A well-functioning planning system is fundamental for sustainable development and achieving sustainable places.

Section 2 of the PPW specifically outlines the promotion of health and well-being, wherein it outlines that developments should aim to promote healthy and safe communities which support the needs of local health and well-being through Placemaking.

“The planning system should create sustainable places which are attractive, sociable, accessible, active, secure, welcoming, healthy and friendly. Development proposals should create the conditions to bring people together, making them want to live, work and play in areas with a sense of place and well-being, creating prosperity for all...

... “Placemaking” is a holistic approach to the planning and design of development and Spaces, focused on positive outcomes. It draws upon an area’s potential to create high quality development and public spaces that promote people’s prosperity, health, happiness, and well-being in the widest sense.”

Planning Practice Guidance (PPG) web-based resource was updated by the Ministry for Housing, Communities and Local Government (MHCLG) on 1st November 2019 in order to support the NPPF and make it more accessible. The PPG guidance on Healthy and Safe Communities encourages the design and use of the built and natural environments, including green infrastructure are major determinants of health and wellbeing.

Future Wales: The National Plan 2040

Published in February 2021, this plan sets out the long-term direction of development in Wales to 2040. It states:

“It is a development plan with a strategy for addressing key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and

climate-resilience, developing strong ecosystems and improving the health and well-being of our communities.”

Local Policy

Following a review of the Neath Port Talbot County Borough Council Local Development Plan (2011-2026) (Adopted April 2016), the following policies linked to health were identified.

Policy EN8: Pollution and Land Stability

“Proposals which would be likely to have an unacceptable adverse effect on health, biodiversity and/or local amenity or would expose people to unacceptable risk due to the following will not be permitted:

- *Air pollution;*
- *Noise pollution;*
- *Light pollution;*
- *Contamination;*
- *Land instability;*
- *Water (including groundwater) pollution.*

Proposals which would create new problems or exacerbate existing problems detailed above will not be acceptable unless mitigation measures are included to reduce the risk of harm to public health, biodiversity and/or local amenity to an acceptable level.”

3.0 PUBLIC HEALTH PROFILE

It is important to understand the context within which a development is proposed. In this section the nature of the local environment and community profile is summarised for each of the relevant 'health determinants' (referred to in Section 1.0 above and in Section 3.0, Table 3.1) to be used in the HIA.

The proposed development is located northwest of Junction 38 of the M4 in Margam, Port Talbot within the jurisdiction of Neath Port Talbot Council (NPTC). The total resident population in Neath Port Talbot was 144,386 people in 2020 according to the Local Government Association data for NPTC¹.

The life expectancy for the whole of Neath and Port Talbot for both men and women is lower than the Wales average², with men's life expectancy being 77.0 years (15 months below the national average) and women's life expectancy being 80.9 years (17 months below the national average) in 2015-2017¹.

Approximately 24.1% (5,915) of children in Neath and Port Talbot lived in low-income families during 2016¹. Low income groups in the area may be more vulnerable to health effects. This is because low income groups are commonly associated with a higher rate of mortality and long-term health conditions due to a lower standard of living.

73.3% of the population of Neath Port Talbot are reported as having 'Good' general health³.

3.1 LIFESTYLES

Physical Activity

43% of adults in the Borough do the recommended weekly physical activity¹, below the national average of 53%. Approximately 66.6% of Borough adults were classified as overweight or obese – an average higher than the national value of 60%.

The principal causes of premature death in Neath Port Talbot are cancers, heart disease and stroke, respiratory and liver disease. These conditions are also the principal causes of disability and ill health.

3.2 SOCIAL AND COMMUNITY INFLUENCES ON HEALTH

Community Identity

Neath Port Talbot is made up of a predominantly 'White' population (95.4%). Other ethnic groups in the region including Black, Asian and minority ethnic groups account for approximately 5.6% of the population.

1. https://lginform.local.gov.uk/reports/lgastandard?mod-metric=3281&mod-period=1&mod-area=W06000012&mod-group=AllFireInRegion_Wales&mod-type=namedComparisonGroup

2 <https://phw.nhs.wales/services-and-teams/observatory/data-and-analysis/life-expectancy-and-mortality-in-wales-2020/>

3. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/articles/generalhealthinenglandandwales/2013-01-30#welsh-unitary-authority-comparisons>

English or Welsh is the predominant language of 99.0% of households. 58.91% of Neath Port Talbot residents stated that they had a religion, with the majority of these being Christian. Over one third of the population stated that they had no religion.

3.3 LIVING / ENVIRONMENTAL CONDITIONS AFFECTING HEALTH

Traffic/Road Network

There is a risk of injuries associated with traffic collisions/accidents on local road networks and there is the potential for a level of distress when travelling in busy periods or sitting in queuing traffic.

As per the submitted Transport Assessment, an analysis of personal injury accident data records has identified no significant issues associated with the local highway network that are detrimental to road safety levels.

There is cycle parking proposed at the development. The roads around the scheme have good access to cycle lanes and infrastructure, inclusive of a shared footway / cycleway running along the A48 which connects the development site to surrounding residential areas in Margam and Port Talbot.

The busiest road within the site study area is the M4 to the east of the proposed development, however pedestrian crossing points are located within the vicinity of the development site, which minimise risks.

Air Pollution/Air Quality

A full Air Quality Assessment has been undertaken for the application by Air Quality Consultants (October 2021). The Air Quality Assessment shows that the proposed development is not situated within an Air Quality Management Area. **Table 13-22** within the Assessment shows that the proposed development is not predicted result in any significant effects on existing receptors considered within the assessment in relation to air quality in terms of NO₂, PM₁₀, PM_{2.5}, chromium, nickel, copper and lead.

As indicated in **Table 13-23** within the Air Quality Assessment, the proposed development is not predicted to exceed the Air Quality objective for PM₁₀ or PM_{2.5} concentrations, respectively. Additionally, **Table 13-26** indicated that no significant effects will occur as a result of emissions of chromium, nickel copper and lead from the Metal Processing Facility.

Temporary elevation in dust levels may arise on an intermittent basis as part of the construction phase of the proposed development. This is more likely when the proposed activities are undertaken during dry and/or windy meteorological conditions. The magnitude of the potential impact and resulting environmental effects depend on the potential for dust to become and remain airborne prior to returning to the surface as a deposit. Unlike other atmospheric pollutants, the presence of dust and its deposition is particularly dependent on distance to discrete receptors and prevailing weather conditions, with areas most consistently affected being located downwind of emission sources.

The increase in mortality risk associated with long-term exposure to particulate air pollution (PM₁₀ and PM_{2.5}), i.e. the inhalation of small particles penetrating the lungs, is one of the most important, and best-characterised, effects of air pollution on health. There is evidence that people with pre-existing respiratory or cardiac disease or diabetes are more susceptible to the health effects of air pollution.

Green Space

The development site is located approximately 4.5 km south of Port Talbot centre, with the area immediately surrounding the development predominantly agricultural, suburban and industrial land. The proposed development is located in close proximity to walking and cycling routes, such as the long-distance recreational route of the Wales Coastal Path which extends around the southern and eastern edge of the proposed development site. Additionally, Tyn y Caeau, a 2-Storey residential dwelling, is located in close-proximity to the north-eastern site boundary. Currently, the development site is used for agricultural purposes comprising of enclosed field boundaries, hedgerows and a small woodland copse. Margham Country Park lies to the east of the development site across the other side of Junction 38, M4. The existence of such facilities majorly benefits human health and well-being.

Noise

An initial Noise Assessment has been undertaken for the application. **Table 5-3** within the Assessment dated September 2021, shows that during the daytime operational noise levels of the proposed development are predicted to meet criteria. At night, the Noise Assessment states:

“However, a marginal excess is indicated at night; however, we would argue that as these are limited to only two night-time HGV visits per week and absolute levels are well below prevailing ambient noise climate at night that these occasional HGV movements should be easily accommodated within the existing soundscape.”

A noise assessment of the car park associated with the development has been undertaken. The car park noise assessment indicates an insignificant impact in comparison to the existing ambient noise levels. The report states:

“However, car park noise is indicated to exceed the proposed noise criteria, and therefore options for screening should be investigated.”

Screening which removes line of sight from the residential dwelling, Tyn y Caeau, to the car park access road as well as the staff car park is suggested as a possible mitigation measure. The type of screening suggested could take the form of a landscaped earth bund or a solid structure such as a close board timber fence or a wall.

About 30% of UK's population is expressing dissatisfaction with their noise environment. The effects of exposure to noise on health include:

- Annoyance and sleep deprivation;
- An increased level of stress hormones leading to the possibility of long-term effects on blood pressure and on cardiovascular disease;
- An increased likelihood of developing mental illness and exacerbating existing mental health conditions;
- Impairment of cognitive performance in children.

A living environment free from noise disturbance is especially important for people who are at home for long periods, such as people living with existing mental health conditions.

Water

Much of the development site is located within flood Zone B with a small area in Zone C2. The Site is classed as being at 'Very low risk', defined as having less than 0.1% chance of flooding. Approximately 420m from the proposed site boundary is the Eglwys Nunydd Reservoir (SSSI). The surrounding area does not have any water-dependent designated sites such as National Parks, Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Areas of Outstanding Natural Beauty (AONB).

Health and Safety Executive Consultation Zones

The Health and Safety Executive (HSE) is Britain's national regulator for workplace health and safety. It prevents work-related death, injury and ill health. HSE is a statutory consultee for certain developments within the consultation distance of major hazard sites/pipelines. HSE have been consulted due to the development site proximity to HSE consultation zones for the Hazardous Installation BOC Gases Ltd Ref: H0217 and HSE Consultation zones for Major Accident Hazard Pipelines. The site falls within the Inner, Intermediate and Outer HSE consultation zones and is in close proximity to a high-pressure gas pipeline and the BOC Major Installation.

HSE have undertaken a 'Phase 1' enquiry which provides a report indicating whether or not the development site is within or outside of any HSE consultation zones. Additionally, a 'Phase 2' enquiry has been undertaken which provides a report stating whether HSE would advise against the granting of planning permissions or whether HSE would not advise against. The outcome of this report is stated below:

"HSE's Advice: Do Not Advise Against, consequently, HSE does not advise, on safety grounds, against the granting of planning permission in this case."

3.4 ECONOMIC CONDITIONS AFFECTING HEALTH

Economic Activity

In 2021, 75.1% of Neath Port Talbot residents are economically active. Of these, 75.1% are in employment (4.9% self-employed) and 3.8% of the population are unemployed⁴.

The top occupations listed by people in Neath Port Talbot is Professional Occupations 17.4%, Administrative & Secretarial 15.9%, Caring, Leisure And Other Service Occupations 11.5%, Associate Professional And technical 11.3%, Skilled Trades Occupations 11.2%, Elementary Occupations 10.3%, Sales And Customer Service Occupations 8.5%, Managers, Directors And Senior Officials 6.9% and Process Plant & Machine Operatives 5.9%⁴.

The dominating industry within Neath Port Talbot is Manufacturing.

Table 3-1 Earnings by place of residence (2021)⁴

Gross Weekly Pay	Neath Port Talbot (£)	Wales (£)	Great Britain (£)
Full-Time Workers	589.6	570.6	613.1

⁴ <https://www.nomisweb.co.uk/reports/lmp/la/1946157394/report.aspx>

Male Full-Time Workers	612.7	599.7	655.5
Female Full-Time Workers	518.3	528.3	558.1

Table 3-1 indicates the average weekly salary for residents of Neath Port Talbot is greater than the Regional Average but lower than the UK Average.

Biological Diversity

An ecological impact assessment has been undertaken by Saltys Brewster Ecology dated June 2021. In the absence of mitigation measures, there is potential for mortality, injury or disturbance to wildlife such as badgers, bats, nesting birds and common reptiles. There is also likely to be a loss, fragmentation or disturbance to priority and important habitats including Semi-natural broad-leaved woodland, hedgerows, marshy grassland and semi-improved neutral grassland. Appropriate mitigation measures have been suggested within the ecological assessment.

NPTCs area of jurisdiction Kenfig Pool and Dunes (NNR), Eglwys Nunydd Reservoir (SSSI) and Kenfig / Cynffig (SSSI, SAC) which are located within 5km of the proposed site.

The proposed metal processing facility is not expected to have a significant impact on the above sites.

Climate change

Some of the challenges that the Borough and the UK are expected to face as a result of climate change include higher temperatures that could potentially lead to increased air pollution and consequent increase in number of people suffering from respiratory illnesses and asthma.

3.5 WELLBEING

The World Health Organisation includes wellbeing as a distinct part of its definition of health where health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. In this instance wellbeing is the state of being mentally or physically comfortable, healthy, or happy. However, wellbeing can be understood as how people feel and how they function, both on a personal and a social level, and how they evaluate their lives as a whole.

It is not possible to determine the wellbeing of a population and therefore it is measured using indicative factors, such as access to open space, nature reserves or heritage assets, which can affect a population's wellbeing.

People with the poorest personal wellbeing are most likely to have at least one of the following characteristics or circumstances:

- self-report very bad or bad health;
- be economically inactive with long-term illness or disability;
- be middle-aged;
- be single, separated, widowed or divorced;
- be renters; and,
- have no or basic education.

In 2020, 24.9% of Neath Port Talbot residents were economically inactive, higher than the Regional Average of 24.6% for Wales and greater than the UK Average of 21.6%. These figures show that the Local Authority area is less economically active than the Region, and less economically active than the UK Average⁴.

In 2020, 27.5% of Neath Port Talbot residents were educated to NVQ4 (equivalent to a Higher Education Certificate/BTEC) and above, compared to 38.5% of the Region and 43.1% of the UK. A full breakdown of the education profiles of Neath Port Talbot, Wales, and the UK Averages is outlined in **Table 3-2**⁴.

Table 3-2. Office for National Statistics Data on Qualifications

Qualification	Neath Port Talbot (%)	Wales (%)	Great Britain (%)
NVQ4 And Above	27.5	38.5	43.1
NVQ3 And Above	49.6	58.3	61.3
NVQ2 And Above	72.7	76.5	78.1
NVQ1 And Above	82.2	86.7	87.7
Other Qualifications	6.6	5.6	5.9
No Qualifications	11.2	7.7	6.4

Table 3-2 shows that Neath Port Talbot residents have obtained a lower level of education and qualifications than the Regional and UK Averages up to NVQ4 (inclusive), the equivalent of a Higher Education Certificate/BTEC.

The Office for National Statistics has compiled data from an Annual Population Survey to assess personal wellbeing, which has been surveyed through four measures: *Life satisfaction*, feeling the things done in life are *Worthwhile*, *Happiness*, and *Anxiety*⁵. The four measures are assessed using a scale from 0-10 where 0 is 'not at all' and 10 is 'completely', and using the questions outlined below:

- Life satisfaction - Overall, how satisfied are you with your life nowadays?
- Worthwhile - Overall, to what extent do you feel that the things you do in your life are worthwhile?
- Happiness - Overall, how happy did you feel yesterday?
- Anxiety - On a scale where 0 is "not at all anxious" and 10 is "completely anxious", overall, how anxious did you feel yesterday?

Table 3-3. Office for National Statistics Wellbeing Survey

Qualification	Neath Port Talbot	Wales	Great Britain
Anxiety			
Very good	38.05	33.34	33.07
Good	19.78	22.59	24.16
Fair	17.81	17.65	18.56
Poor	24.35	26.42	24.21
Average (mean)	3.25	3.42	3.31
Happiness			
Very good	37.03	30.00	29.53

⁵ <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing>

Good	34.67	42.25	42.59
Fair	16.77	17.84	18.61
Poor	11.53	9.92	24.21
Average (mean)	7.36	7.30	7.31
Life Satisfaction			
Very good	26.07	25.25	23.75
Good	47.72	49.62	52.59
Fair	18.87	18.13	17.54
Poor	7.33	7.01	6.12
Average (mean)	7.31	7.38	7.71
Worthwhile			
Very good	36.81	31.45	31.48
Good	45.85	46.39	50.15
Fair	10.32	12.81	13.9
Poor	7.01	5.11	4.47
Average (mean)	7.79	7.63	7.71

Table 3-3 outlines the Office for Nations Statistics' data for the Annual Population Survey for each of the four wellbeing measures. In each of the four categories which constitute the measurements of wellbeing, Neath Port Talbot has the highest population percentage in 'Very Good' or 'Good' and the lowest in 'Poor' or 'Fair' when compared against the Regional and UK averages.

Given the analysis of baseline wellbeing within the Authority area of Neath Port Talbot, it can be concluded that the wellbeing in the Local Authority Area is above the Regional Average and in places, above the UK Averages.

The proposed development is located in close proximity to walking and cycling routes, such as the long-distance recreational route of the Wales Coastal Path which extends around the southern and eastern edge of the proposed development site.

The Proposed Development is located on arable land and therefore may be perceived to result in a loss of some green space, however, the existing use of the land does not contain any active Public Rights of Way and it should be noted that this land use is unlikely to have any health or wellbeing benefit to any local populous.

Additionally, the development will have an economic impact on the Local Authority Area as well as further afield, as during the construction phase, the proposed development will provide job opportunities. It is estimated that the construction of the project will support direct and indirect jobs through the supply chain. Once completed the development is envisaged to provide approximately 150 direct jobs, which will comprise a range of opportunities, from entry level warehouse roles through to skilled technical and managerial positions.

The economic benefits of employment at the Proposed Development are likely to be felt adjacent to the Proposed Development and in the Neath Port Talbot Local Authority Area.

Access to green space and economic activity are recognised to have an impact on wellbeing, and therefore is determined that the proposed development is likely to have a net increase on local wellbeing on completion of the scheme.

4.0 ASSESSMENT METHODOLOGY

4.1 HEALTH IMPACT ASSESSMENT APPROACH AND METHODOLOGY

HIA is commonly defined as “a combination of procedures, methods and tools by which a policy, program or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.” It is a tool to appraise both positive (e.g. creation of new jobs) and negative (e.g. generation of pollution) impacts on the different affected subgroups of the population that might result from the development.

The Health Impact Assessment aims to identify all these effects on health in order to enhance the benefits for health and minimise any risks to health. It includes specifically a consideration of the differential impacts on different groups in the population, such as those on a low income, people involved in the criminal justice system, minority ethnic groups, young, disabled (physically and learning) and elderly people.

Spatial planning and development has the potential to impact on human health and wellbeing. This is because a wide range of social and environmental factors affect the health of local communities. Good health is related to good quality housing and developments, well designed street scenes, well laid out neighbourhoods, quality and efficiency in transport systems, opportunities to experience leisure and cultural services activities and green and open space. These factors are known as the “wider determinants of health” and include:

- Individual lifestyle factors such as smoking habits, diet and physical activity.
- Interactions with friends, relatives and mutual support within a community.
- Wider influences on health including - living and working conditions, unemployment, sanitation, health care service, housing, food supplies, education, and the work environment.

Health Impact Assessment, A Practical Guide Version 2

Whilst there is no statutory regional or national guidance for undertaking Health Impact Assessments (HIAs) in Neath Port Talbot or the UK, advice provided by the Welsh Health Impacts Assessment Support Unit (WHIASU) has been used to inform the HIA as it provides a methodology for completing HIAs.

The HIA has been undertaken with reference to the Public Health England produced ‘Health Impact Assessment in spatial planning: A guide for local authority public health and planning teams’, published October 2020, which outlines the requirements of an HIA, and the general scope of the assessments.

The above is further supplemented by the applicant’s and consultant’s experience of other similar sites and developments.

Based on the Health and Wellbeing Determinants Checklist within the ‘Health Impact Assessment, A Practical Guide Version 2’, the scoping assessment identified a number of health determinants (as outlined in Section 3.0, Table 3.1) as having the potential to result in health impacts on the development and therefore have been scoped into further assessment.

The HIA takes a proportionate approach to the consideration of any health-related impacts which could arise from the proposed development.

This guide provides advice on defining health and measuring impacts on it. It includes a checklist of potentially vulnerable and disadvantaged groups (appendix 1) and a checklist of health determinants (appendix 2). The documents recognise that target groups are a guide only and will depend upon the:

- Characteristics of the local population; and
- The nature of the proposal.

In the context of this assessment, health effects as a result of a change in pollutant levels has been identified as the most relevant topic for assessment within the HIA.

4.2 AIMS AND OBJECTIVES OF HEALTH IMPACT ASSESSMENT

A Health Impact Assessment should:

- Include individual lifestyle factors such as smoking habits, diet and physical activity. Impacts of the proposed development on planned new communities and the adjacent existing communities in the development area;
- Highlight any potential differential distribution effects of health impacts among groups within the population by asking 'who is affected?' for the impacts identified; and
- Suggest actions / mitigations that aim to minimise any potential negative health impacts and maximise potential positive health impacts, referencing where possible the most affected vulnerable group(s).

A topic of great concern is mental health and wellbeing and the importance of certain aspects of the built and natural environment are to such health factors. It is difficult to appropriately measure the mental health and wellbeing of populations, and therefore it is not possible to show trends in fluctuations of health and wellbeing in communities. Aspects of developments and their surroundings are used as indicators for mental and physical health as well as wellbeing, such as the availability of greenspace, and the potential effects the development will have on these factors.

Table 4-1 lists the Health Determinants considered in the HIA.

Table 4-1. Health Determinants considered in the HIA

Health Determinant	Explanation	Population Group Potentially Affected
Lifestyles		
Physical activity	Physical activity is defined as any bodily movement that requires energy expenditure. Popular ways to be active includes walking, cycling, sports and recreation. Within the proposed development, physical activity is considered within the availability of pedestrian and cycle routes which encourage 'healthy travel'.	Pedestrians and cyclists
Social and community influences on health		
Community Identity	There is no one definition of community identity however it is considered to comprise a neighbourhood's history, natural features, cultures, population and services make-up and sources of community pride.	Local residents
Living / environmental conditions affecting health		
Traffic NO ₂ emissions	Emissions from all of the above have the potential to affect human health through inhalation.	Future Residents Surrounding residents
Traffic particulate matter		
Boiler/CHP NO ₂ Emissions		
Health effects of air pollutants		
Access to green space	Green space includes parks and gardens, natural and semi-natural urban green spaces, outdoor sports facilities, landscape around spaces and accessible countryside ⁶ . There is significant and growing evidence on the health benefits of access to good quality green spaces. The benefits include better self-rated health; lower body mass index, overweight and obesity levels; improved mental health and wellbeing; increased longevity.	General population
Noise	Noise has the potential to disrupt sleep and cause nuisance at surrounding receptors and has the potential to damage the hearing of site employees if working near particularly loud sources.	Surrounding Residents; Future Residents
Flood Risk	There is potential for distress as a result of damage to property as a result of flooding.	Site residents/employees

⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/355792/Briefing8_Green_spaces_health_inequalities.pdf

Wind	There is potential for microclimate effects of tall buildings to create strong gusts which would cause discomfort to pedestrians and there is a risk that cyclists could be blown over.	Pedestrians/cyclist
Economic conditions affecting health		
Economic activity	Economic activity is generated through employment opportunities and trade within the area.	Employees; Local residents
Access and quality of services		
Road hazards	The potential for traffic accidents as a result of road infrastructure such as signage and road crossings and the behaviour of drivers, pedestrians and cyclists.	Pedestrians; cyclists; road users
Journey distress	Mental and physiological effects experienced by a driver traversing a road network. Journey distress can result in drivers the feelings of discomfort, annoyance, frustration or fear culminating in physical and emotional tension that detracts from the value and safety of a journey.	Drivers
Macro-economic, environmental and sustainability factors		
Government policies	Government policy encourages a move towards a circular economy and the recycling of materials such as metals.	Local Residents and General population Surrounding habitats
Climate change	As a result of anthropogenic activities, the climate of the UK is expected to change over time with increasing temperatures, more varied rainfall patterns and an increase in the frequency of extreme weather events.	
Biological diversity	Biological diversity includes habitats, species and any protected designated areas.	Surrounding habitats

5.0 ASSESSMENT OF EACH IDENTIFIED HEALTH DETERMINANT

Based on the above scoping exercise, an assessment and summary of the relevant potential health effects is included in **Table 5-1** to **5-3** below. The tables provide a summary of the proposals for each health determinant, but these should be read in conjunction with the relevant technical report submitted with the planning application.

Table 5-1. Summary of Proposed Development

Proposal Summary

This report presents the findings of a Health Impact Assessment for the proposed erection of a metal processing facility, offices, amenity building (Use Classes B1, B2 and B8) and other associated infrastructure on a site situated to the northwest of Junction 38 of the M4 in Margam, Port Talbot.

Table 5-2. Summary of Health Effects

Health Determinant	Assessment Summary	Additional Comments	Is the Development predicted to have a Significant Effect on this Aspect Health?
Lifestyles			
Physical activity	The proposed development is located in close proximity to walking and cycling routes, such as the long-distance recreational route of the Wales Coastal Path which extends around the southern and eastern edge of the proposed development site. There may be a loss of some green space as a result of the development, however, the proposed development is situated on land with an existing agricultural use, and therefore unlikely to have any health or wellbeing benefit. Cycle parking is proposed as part of the development, subject to planning consent, which will promote cycling to and from the proposed development.	There will be a benefit as a result of greater access to cycle parking and a promotion of healthy commuter methods as a result of the proposed development.	No Significant adverse effect. There will be a benefit from the additional cycle infrastructure and as a result of the modal shift towards sustainable transport measures and as a result reduction in vehicles movements to and from the site.
Social and community influences on health			
Community Identity	Despite the challenging circumstances due to Covid-19, the applicant has undertaken consultation with NPTC, key stakeholders and the community which follows the Government's advice that the planning system should not be delayed as a result of the pandemic.		No Significant Adverse Effect
Living / environmental conditions affecting health			
Traffic NO ₂ emissions	An Air Quality Technical assessment has been completed by Air Quality Consultants (October 2021) to accompany the planning application. This shows that the changes in air quality to surrounding residents will be 'negligible'. The assessment showed no exceedances of the Air Quality Objective for Nitrogen Dioxide. Mitigation measures included within the Travel Plan associated with the scheme will be implemented to promote the use of sustainable transport measures.		No Significant Adverse Effect There will be a benefit as a result of the modal shift towards sustainable transport measures and as a result reduction in vehicles movements to and from the site.
Traffic and Metal Processing Plant facility particulate matter	An Air Quality Technical assessment completed by Air Quality Consultants (October 2021) has been completed to accompany the planning application. This shows that the changes in air quality to surrounding residents will be 'negligible'. The proposed development is not predicted to result in any significant effects on existing receptors considered within the assessment in relation to emissions of chromium, nickel, copper and lead. The assessment showed no exceedances of the Air Quality Objective for Particulate Matter.		No Significant Adverse Effect There will be a benefit as a result of the modal shift towards sustainable transport measures and as a result reduction in vehicles movements to and from the site.
Health effects of air pollutants	There is currently limited awareness among the general population of local air pollution levels and how they can affect people and the difference between perception and risk.		No Significant Adverse Effects

	There is predicted to be a 'negligible' impact associated with air pollutants as a result of the development.		
Access to green space	The proposed development is not expected to have any significant impact on nearby green spaces such as Margam Country Park.		No Significant Adverse Effect
Flood risk and water quality	A flood risk assessment has been undertaken. The site is located in an area of 'Very Low' risk to flooding.		No Significant Adverse Effect
Noise	A Noise Assessment undertaken by Hunter Acoustics (September 2021) has been completed which assesses the effects of noise from the scheme on surrounding residences. A car park noise assessment indicates a likely exceedance of the proposed noise criteria. The assessment gives appropriate mitigation measures to manage any noise levels at sensitive internal or external spaces.	During Construction, Site employees will wear personal protective equipment (PPE) where required.	No Significant Adverse Effect
Health and Safety Executive Consultation Zones	The site falls within the Inner, Intermediate and Outer HSE consultation zones and is in close proximity to a high-pressure gas pipeline and the BOC Major Installation. HSE's Advice has stated that they 'Do Not Advise Against' the granting of planning permission in the case of this development.		No Significant Adverse Effect
Wind	The proposed building is not tall enough to require a wind microclimate assessment and there are not expected to be any adverse effects as a result of the development in terms of wind.		No Significant Adverse Effect
Economic conditions affecting health			
Economic activity	Once completed the development is envisaged to provide approximately 150 direct jobs, which will comprise a range of opportunities, from entry level warehouse roles through to skilled technical and managerial positions.	The economic benefits of employment at the proposed development are likely to be felt in neighbouring Local Authority areas and the neighbouring communities.	No Significant Adverse Effect There will be a benefit from the ongoing employment and economic growth.
Access and quality of services			
Road hazards	The proposals are unlikely to have any material impact on the level of personal injury accidents in the area; There are also walking and cycleways to the north and west of the site along the A48. A Transport Assessment and Travel Plan have been produced by Apex Transport Planning (September 2021) and has been submitted as part of this application.	Safe vehicular access points into the Site will be created.	No Significant Adverse Effect
Journey distress	Construction work to the road network within the development area could result in congestion or diversions for both motorised and non-motorised users. A CEMP has been submitted as part of the application, which outlines best		No Significant Adverse Effect

	practice mitigation measures which will be implemented on and off site.		
Macro-economic, environmental and sustainability factors			
Climate change	The UK Climate Projections contains regional climate information for which Neath Port Talbot is included in the South Wales region. The South Wales region is predicted to experience changes in temperature, rainfall, and frequency of extreme weather events as a consequence of climate change. These changes are predicted to occur under all three emissions scenarios (i.e. low, medium, and high Green House Gas emissions), which are incorporated into the climate change models produced by the Met Office Hadley Centre. The general trend for the region is warmer and drier summers and warmer and wetter winters.	The assessment of air quality has considered the meteorological conditions at the site.	No Significant Adverse Effect
Biological diversity	An ecological impact assessment has been undertaken by Saltys Brewster Ecology (June 2021). In the absence of mitigation measures, there is potential for mortality, injury or disturbance to wildlife such as badgers, bats, nesting birds and common reptiles. There is also likely to be a loss, fragmentation or disturbance to priority and important habitats including Semi-natural broad-leaved woodland, hedgerows, marshy grassland and semi-improved neutral grassland.	Appropriate mitigation measures to minimize the impact on the affected wildlife and habitats have been suggested within the ecological assessment.	No Significant Adverse Effect

Table 5-3. Rapid Health Impact Assessment

Planning and Development Issue	Impact			Certainty		Description of Impact on health and your rationale for this	Recommendation (to minimise or maximise impact)
	+	-	?	?	!		
Construction							
Pollution	x				x	The Air Quality Assessment confirms that during the construction phase of the development there is the potential for air quality impacts as a result of fugitive dust emissions from the Site. However, assuming good practice dust control measures are implemented, the residual significance of potential air quality impacts from dust generated by earthworks, construction and trackout activities is predicted to be negligible. The Noise Impact Assessment confirms that the noise levels at existing noise sensitive properties from the factory & HGVs will meet criteria. A car park noise assessment indicates a likely exceedance of the proposed noise criteria.	The Air Quality Assessment recommends that principles of standard construction mitigation measures are implemented on site to reduce the impact of construction activities. Following the implementation of mitigation outlined within the CEMP, the impact of construction activities is predicted to be 'negligible'. Options of screening to mitigate against car park noise should be investigated.
Access to Sustainable Travel and Transport							

Promotion and ease of cycling and walking	x				x	A Transport Assessment undertaken by Apex Transport Planning (September 2021) has been submitted as part of this application. This confirms that the Site is located adjacent to major transport links with a high standard of pedestrian infrastructure and off-road and on-road cycle routes easily accessible from the Site. The development area is served by existing bus routes and is accessible by a range of public transport options. In terms of parking, secure and covered cycle parking spaces will be provided on the site to encourage cycling.	A Travel Plan is submitted alongside the application which demonstrates a commitment to sustainable travel initiatives and provides an indication of how the development will be designed and managed to discourage reliance on the private car and how alternative modes of travel will be promoted at the Site. This includes the implementation of safe and secure cycle storage areas, and the promotion of healthy travel options such as walking and cycling.
Access to public transport links	x				x	The applicant has plans to introduce measures to promote car sharing, the use of public transport and sustainable commuting methods, which would allow staff to access the premises without the need for private cars. It therefore concludes that the Site is accessible by a range of sustainable modes of transport and can be considered a suitable location for the proposed development.	A Travel Plan is submitted alongside the application which demonstrates a commitment to sustainable travel initiatives, and provides an indication of how the development will be designed and managed to discourage reliance on the private car and how alternative modes of travel will be promoted at the Site. This includes the promotion of public transport links, and the provision of information packs containing the relevant public transport routes.
Other	x				x	Electric vehicle charging points will be installed, with a minimum of 10% of available parking.	N/A
Access to healthy food/food							
Ease of access to local supermarkets or convenience stores	x				x	There are currently no local shops, supermarkets or other amenity and commercial entities are within walking distance of the development.	An employee amenities block had been proposed as part of this development.
Opportunities for local food growing						N/A	N/A
Other	x				x	An amenities block is proposed within the development, which will provide affordable healthy food options to staff.	N/A
Community Safety							
Traffic management		x			x	Construction work to the road network within the development area could result in congestion or diversions for both motorised and non-motorised users. Safe vehicular access points into the Site will be created. The proposals are unlikely to have any material impact on the level of personal injury accidents in the area;	Implementation of the CEMP submitted as part of the application, using best practice mitigation measures.
Safe and secure play areas						N/A	N/A
Safe and inclusive environments						N/A	N/A

Prevention of crime and anti-social behaviour	x				x	The current Site with its lack of development and maintenance, presents an opportunity for anti-social behaviour and crime. The design of the site includes security measures on site, to be accompanied with landscaping, including the installation of security fencing. This will ensure a high level of security is achieved. Appropriate lighting will also be provided on site which will prevent crime and increase community safety.	N/A
---	---	--	--	--	---	--	-----

Employment and Economy

Local employment opportunities	x				x	The operation of the proposed Metal Processing Facility of the development will result in direct and ongoing employment opportunities. Numerous jobs are supported throughout the downstream supply chain (drivers, construction workers).	N/A
Access of a variety of travel modes to places of work						N/A	N/A

Community Cohesion

Ease of access to public buildings for all						N/A	N/A
Ease of access to public spaces for all						N/A	N/A
Opportunities for promoting community interaction						N/A	N/A

Climate Change

Green infrastructure	x				x	The proposed development is designed with sustainability in mind. The proposal includes buildings which are energy efficient and designed to reduce carbon emissions.	Green infrastructure in the form of new trees, hedgerows and grassland will be provided.
Flood risk and drainage	x				x	Much of the site is located within flood Zone B with a small area in Zone C2.	A Sustainable Drainage scheme (SuDS) will be incorporated into the development scheme to ensure it is protected from flooding.

6.0 CONCLUSIONS

Tetra Tech have undertaken a Health Impact Assessment (HIA). The potential effects of the scheme on human health have been identified and summarised. The HIA draws heavily on the extensive work undertaken for the planning application. The summary of health effects is included in **Tables 5-1 to 5-3**. This concludes that the proposed development is not predicted to give rise to any significant adverse health-related impacts, and that there will be some benefits.

The public health profile for the surrounding area has been summarised. This generally shows that life expectancy is lower than the Wales average around the site. Additionally, average weekly pay is greater than the average for Wales, but less than the UK average. However, there is not likely to be an adverse impact as a result of the development.

A review of the potential for the development to have health effects for both future users of the site and surrounding occupants has been undertaken. The assessment concludes that there are no significant adverse effects to health as a result of the scheme. In addition, the proposed development will provide a number of jobs, which is also a benefit to the area. Jobs will be created, both directly and indirectly, through the construction of the project and, once operational, 150 direct jobs will be created.

APPENDIX A - REPORT TERMS & CONDITIONS

This Report has been prepared using reasonable skill and care for the sole benefit of Sandvik Osprey Ltd (“the Client”) for the proposed uses stated in the report by [Tetra Tech Limited] (“Tetra Tech”). Tetra Tech exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder’s permission.

No liability is accepted, or warranty given for; unconfirmed data, third party documents and information supplied to Tetra Tech or for the performance, reliability, standing etc. of any products, services, organisations or companies referred to in this report. Tetra Tech does not purport to provide specialist legal, tax or accounting advice.

The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary, and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The “shelf life” of the Report will be determined by a number of factors including; its original purpose, the Client’s instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accept no liability for issues with performance arising from such factors.