



<b>Report to:</b>	Shadow Strategic Policy & Resources Committee
<b>Subject:</b>	<b>York Street Interchange- Environmental Statement consultation</b>
<b>Date:</b>	20 <sup>th</sup> March 2015
<b>Reporting Officer:</b>	John McGrillen (Director of Development)
<b>Contact Officer:</b>	Keith Sutherland (Urban Development Unit Manager), Anne Doherty (Planning & Transport Officer)

<b>1.0</b>	<b>Relevant Background Information</b>
1.1	The Department for Regional Development announced the preferred option for the York Street Interchange (YSI) in December 2012. The preferred option proposes the full grade separation of movement between the Westlink, M2 and M3. Grade separation is provided via underpasses below the Lagan Bridge and Dargan Bridge. York Street would be partially raised to accommodate the underlying links. All north facing slip roads at Clifton Street remain open in the proposed layout.
1.2	DRD Transport NI has now completed Stage 3 assessment of the scheme and this work has included the completion of an Environmental Impact Assessment, in accordance with the requirements of the Design Manual for Roads and Bridges. The DRD Minister announced the formal consultation on the Environmental Statement for the proposed York Street Interchange on 27th January 2015.
1.3	DRD Transport NI anticipates that following this stage of public consultation there will be a Public Inquiry (possibly late 2015), with construction beginning 2017/18 and the proposed scheme completed by April 2021.
1.4	A Strategic Advisory Group has been set up by DRD Transport NI to provide strategic guidance to facilitate the integration of York Street Interchange with other government and private initiatives and also to review the scheme aesthetics. The Council are represented on this group along with representatives from DSD, Planning NI, Arts Council, FAB and Transport NI.
<b>2.0</b>	<b>Key Issues</b>
2.1	<p>A draft response is attached in Appendix 1 for consideration and a summary of the main issues is outlined below.</p> <p>It is suggested that the Council welcomes the opportunity to comment on the Environmental Statement for the York Street Interchange as part of the Stage 3 Assessment public consultation process.</p> <p>The York Street Interchange is highlighted in the Council's draft City Centre Regeneration</p>

Strategy and Investment Plan as a significant project for the city. It is suggested that careful design is required for connecting north / south routes for pedestrian and cyclists and creative solutions are needed to reduce the visual impact of the interchange and make use of otherwise dead space required. The Plan suggests “Underpass Projects” to improve the visual impact and pedestrian connectivity through the M3 and York Street Interchange through public art, landscaping interventions and community sports facilities.

The Council will continue to work with DRD and other partners through the Strategic Advisory Forum to consider actions to minimise the impact of the scheme on the adjoining residential areas and to consider the aesthetics and finishes of the road proposal. The Council are also keen to assess the regeneration opportunities of surplus land parcels resulting from the proposed development at an early stage to maximise the potential benefit for the city. It should be noted that the YSI proposal will impact on one of the DRD off street car parks which will be transferred to Council ownership in April 2015.

It is suggested that the Council request DRD to reconsider the use of on road cycle lanes and shared bus lanes as part of the proposed cycle provision for the scheme. In our response to the draft NI Bicycle Strategy, the Council strongly supported high quality segregated cycle lanes in urban areas particularly on routes where traffic volumes and speed may be high. It is considered that the York Street proposal presents an opportunity to develop segregated cycle lanes along with other innovative measures for cycling infrastructure such as bus stop by passes. The Council would recommend input from DRD Cycle unit into the design of this infrastructure following on from consultation on the Bicycle Strategy.

There are a number of proposed developments in the vicinity of the YSI proposals such as City Quays and the new University of Ulster campus development on York Street. The need to increase the opportunity for active travel access to the new University campus, the city centre and the harbour area is vital.

In relation to the technical aspects of the proposed scheme, it is suggested that the Council highlight the following issues relating to air quality, noise and contaminated land:

- Air Quality

Council Officers have been working closely with DRD on the development of a new Air Quality Action Plan for the city and York Street Interchange has been identified as one of the measures to include in the new plan to improve air quality in that area. The scheme is considered as a means of reducing localised emissions on connecting roads (i.e. as a result of relieving a significant congestion hotspot) and, to a lesser extent, incremental reductions in background emissions, which of course will have a wider impact on exposure. It is suggested that there will be additional concerns regarding the air quality impacts of the proposed scheme on receptors, however, the Council would wish to continue in consultation with DRD regarding the operational and construction plans for the proposed scheme.

- Noise

It is suggested that there could be some concerns as to the impact the construction and particularly piling works could have on the local community. The Council would request early communication from DRD and future contractors regarding work schedules, especially night time work to ensure early communication and engagement with local communities.

- Contaminated Land

The Council welcomes the approach taken and the recommendations made with respect to the management of any unforeseen contamination during construction. However, full

	technical details of the work to be completed have not been provided. This would need to be submitted in order for the Council to fully appraise the possible land contamination issues. Furthermore, there are some concerns that the risks posed to users / residents of adjacent sites has not been fully considered.
<b>3.0</b>	<b>Resource Implications</b>
3.1	There are no resource implications attached to this report.
<b>4.0</b>	<b>Equality and Good Relations Implications</b>
4.1	There are no specific Equality and Good Relations Considerations attached to this report.
<b>5.0</b>	<b>Call-in</b>
	This decision is subject to Call in.
<b>6.0</b>	<b>Recommendations</b>
6.1	Elected members are requested: <ul style="list-style-type: none"> <li>to consider the proposed Draft response to the consultation appended and to agree a final response or any amendments to be forwarded to DRD.</li> </ul>
<b>7.0</b>	<b>Decision Tracking</b>
	Timeline: March 2015 Reporting Officer: Keith Sutherland
<b>8.0</b>	<b>Key to Abbreviations</b>
	YSI- York Street Interchange DRD- Department for Regional Development FAB- Forum for Alternative Belfast
<b>9.0</b>	<b>Documents Attached</b>
9.1	Appendix 1- Draft Belfast City Council response to York Street Interchange- Environmental Statement.

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## **Appendix 1**

### **Response to York Street Interchange - Environmental Statement Public Consultation**

Belfast City Council welcomes the opportunity to comment on the Environmental Statement for the York Street Interchange as part of the Stage 3 Assessment public consultation process. A Strategic Advisory Group has been set up by DRD Transport NI to provide strategic guidance to facilitate the integration of York Street Interchange with other government and private initiatives and also to review the scheme aesthetics. The Council are represented on this group along with representatives from DSD, Planning NI, Arts Council, FAB and Transport NI.

Council Officers will continue work with DRD and other partners through the Strategic Advisory Forum to consider actions to minimise the impact of the scheme on the adjoining residential areas and to consider the aesthetics and finishes of the road proposal. The Council are also keen to assess the regeneration opportunities of surplus land parcels resulting from the proposed development at an early stage to maximise the potential benefit for the city. It should be noted that the YSI proposal will impact on a number of DRD off street car parks which will be transferred to Council ownership in April 2015

Our response below outlines the Council position in relation to the strategic context of the York Street Interchange proposal and this is followed by specific comments on technical aspects.

#### **Belfast City Centre Regeneration Strategy and Investment Plan (Draft)**

The York Street Interchange is highlighted in the Council's draft City Centre Regeneration Strategy and Investment Plan as a significant project for the city. The northern edge of the city centre is identified as the least permeable, defined by the major highway infrastructure of the Westlink and M3. The Plan highlights the issue that with the construction of the York Street Interchange there is the danger that the barrier between the city centre and the communities to the north will become even more pronounced. The City Centre Regeneration Strategy and Investment Plan suggest that innovative and interesting ways must be found to penetrate this barrier and foster connections through the concrete of the interchange.

Under the policy of "Creating a green, walkable, cyclable centre" the objective is to "reduce the area of asphalt and increase green space in the city centre through the provision of new open spaces, a comprehensive streetscaping programme and development of the Lagan corridor as a recreational spine." The draft plan considers the need to rebalance the scales between asphalt and softness on city centre streets as a priority. With the introduction of the York Street Interchange there will be excess road capacity on some of the worst offending portions, notably the Dunbar Link, which the plan proposes could be reallocated to support cyclists and pedestrians.

The Plan also outlines a policy to "Connect to the city around" and aims to "reduce barriers around the city centre and the communities that surround it by connecting to activity in adjacent neighbourhoods, ... reducing road widths, improving pedestrian crossings,

streetscaping key corridors and improving the built form relationship at the edge of the centre.”

It is recommended that careful design is required for connecting north / south routes for pedestrian and cyclists and creative solutions are needed to reduce the visual impact of the interchange and make use of otherwise dead space required. The Plan suggests “Underpass Projects” to improve the visual impact and pedestrian connectivity through the M3 and York Street interchange through public art, landscaping interventions and community sports facilities.

Finally the Plan states that with some modest investment in the design of the interchange with the aim of improving development and regeneration potential and non-motorised movement could have significant future benefits. The Council will work with DRD and other partners through the Strategic Advisory Group to consider how the barrier effect of the interchange can be minimised.

### **Belfast City Masterplan**

Belfast City Masterplan sets out the Cathedral area placemaking solution to deliver the integration of the University of Ulster at Cathedral Quarter. The Plan states that with the opportunity to plan for a new university campus care needs to be taken to shape the substantial investment of public money to ensure that it delivers the optimal social, economic and physical impacts on the city centre. Belfast City Masterplan recognises the need for alignment between the University expansion in this part of the City and the proposed major upgrade of the motorway interchange at York Street.

### **Specific Comments:**

#### **Cycling provision**

The Council would request that DRD reconsider the use of on road cycle lanes and shared bus lanes as part of the proposed cycle provision for the scheme. In our response to the draft NI Bicycle Strategy, the Council strongly supported high quality segregated cycle lanes in urban areas particularly on routes where traffic volumes and speed may be high. It is considered that the York Street proposal presents an opportunity to develop segregated cycle lanes along with other innovative measures for cycling infrastructure such as bus stop by passes. The Council would recommend input from DRD Cycle unit into the design of this infrastructure following on from consultation on the Bicycle Strategy.

There are a number of proposed developments in the vicinity of the YSI proposals such as City Quays and the new University of Ulster campus development on York Street. The need to increase the opportunity for active travel access to the new University campus, the city centre and the harbour area is vital.

#### **Open Space**

The York Street Interchange project presents the opportunity to create significant areas of new green space in a sector of the city currently dominated by transport infrastructure. In line with Council policy, set out in our City Centre Regeneration Plan, we need to increase our network of green spaces to balance increased amounts of hardscape associated with a

project of this scale. Opportunities also exist to create new green boulevards that connect the Northern Quarter through Dunbar Link and back to the city's core.

The northern edge of the city is the least permeable, therefore new open space associated with the development must be accessible to local communities, welcoming, easy to maintain and innovative in terms of landscape treatments. The project presents an opportunity to reconnect this sector of the city through green walking and cycling routes and to reduce severance of adjacent neighbourhoods.

The proximity of the UU Campus development is also significant. The Interchange project also provides opportunities to enhance pedestrian activity associated with the new campus and further develop pedestrian connections to the city centre.

New green spaces should also be designed to reduce the visual impact of new elevated road structures. The Council would support the introduction of significant mature tree and screen planting where possible. Our City Centre Regeneration Plan also advocates the use of planters that disguise harsh concrete surfaces with vines/climbers and the use of vibrant public art or lighting schemes.

The development also offers the opportunity to re-design spaces between road infrastructure which are currently dead space. Where appropriate underpass areas could be transformed into productive community spaces used for sport e.g. multi use games areas or climbing walls. A recent council success has been the development of 'The Bridge's urban sports park beneath the M3 bridge at Corporation Street. A more simple 'greening' approach may present opportunities for informal recreation e.g. small urban parks with stronger connectivity to surrounding communities.

### **Air Quality**

BCC have been working closely with DRD on the development of a new Air Quality Action Plan for the city and York Street Interchange has been identified as one of the measures to include in the new plan to improve air quality in that area. The scheme is considered as a means of reducing localised emissions on connecting roads (i.e. as a result of relieving a significant congestion hotspot) and, to a lesser extent, incremental reductions in background emissions, which of course will have a wider impact on exposure. In relation to Air Quality operational and construction phase impacts are outlined here with a full response included in Appendix 1a.

### **Operational Impacts:**

The URS report has demonstrated that the proposed scheme would result in localised changes in emissions as a result of modification to the existing road layout and associated traffic redistributive effects, the changes in concentrations would generally be of an imperceptible or small magnitude, in terms of both increases and decreases in exposure. In the assumed year of Opening (2021) and the Design year (2035), predicted annual mean concentrations of nitrogen dioxide and particulate matter would be below national air quality objective values at all assessed sensitive receptors for both the Do-Minimum and Do-Something scenarios. Overall, there would be no significant effect on either local or regional air quality as a result of the Proposed Scheme.

### **Construction Phase Impacts:**

Adverse effects on amenity and local air quality due to fugitive emissions of dust, particulate matter and construction related traffic movements are not considered to be significant and would only be of local concern during the construction phase.

Belfast City Council Environmental Protection Unit has no concerns regarding the air quality impacts of the proposed scheme on receptors and would support the scheme in relation to health benefits it has the potential to deliver. However, the Unit would wish to continue in consultation with DRD regarding the operational and construction plans for the proposed scheme.

### **Noise**

Belfast City Council Environmental Protection Unit would request further information as outlined below with a full technical response included in Appendix 1a.

#### **Operational Phase**

- The Environmental Protection Unit requests that once the scheme is operational, the applicant demonstrates, by way of a Verification Report, that further assessment has been conducted to confirm/inform initial predictions as to whether or not any properties identified within the study area meet eligibility criteria under the Noise Insulation Regulations (NI) 1995.
- With respect to compliance with the Environmental Noise Directive, the aforementioned Verification Report should demonstrate liaison with the relevant competent authority (Department of the Environment) and identify any required noise actions arising out of duties under the Environmental Noise Directive.

#### **Construction Phase**

This Unit advises the following **additional information** should be presented once available:

- Submission of a regularly updated CEMP – (Construction Environmental management Plan). This Unit recommends that DRD instruct the appointed Contractor to liaise closely with Belfast City Council in communicating details of the various phases of work demonstrating how good site practices will be adopted in order to mitigate construction noise and vibration impacts. This should include details of noise reduction methods to be employed during piling activities;
- Documentation demonstrating the feasibility of the chosen method of piling;
- Further information relating to the removal of existing noise barriers as part of the construction phase and details of proposed temporary alternatives;
- A proactive strategy aimed at reassuring residents in advance of any piling operations is also recommended. Evidence of feasibility study for the chosen method of piling should be appropriately documented;



- Significant night time works have been identified as likely to be required. Details of proposed night time works required as part of the construction phase should be communicated to Belfast City Council well in advance of any such proposed works with proposed mitigation measures clearly identified;
- Early communication and engagement with communities likely to be impacted by noise and vibration impacts during the construction phase will be an essential element of managing complaints. This Unit seeks confirmation, by the applicant or contractor that a community liaison officer has been appointed to deal with complaints and focus on community engagement/ consultation in relation to the construction phase.

### **Contaminated Land**

Below is a summary of comments/recommendations from the Belfast City Council Environmental Protection Unit (EPU) with regard to contaminated land. The full response is included in Appendix 1a.

With respect to potential human health issues relating to potential land contamination issues associated with the scheme, the EPU has undertaken to review Chapters 16 and 17 of the Environmental Statement. Within these chapters, URS present a contaminated land risk assessment (CLRA) which has been completed generally in line with relevant current industry guidance (*CLR11 Model Procedures for the Management of Land Contamination*).

The CLRA concludes that the risks posed to human health associated with the scheme are 'very low' and that the remediation of any previously unidentified contamination encountered during construction could actually have a 'Slight/Moderate Beneficial' environmental impact.

The EPU welcomes the approach taken and the recommendations made with respect to the management of any unforeseen contamination during construction.

However, full technical details of the work completed have not been provided. This would need to be submitted in order for the EPU to fully appraise the possible land contamination issues. Furthermore, the EPU has some concerns that the risks posed to users / residents of adjacent sites has not been fully considered.

## **Appendix 1a**

### **Air Quality Impact Assessment Response**

#### **Belfast City Council Environmental Protection Unit Technical Comments**

Chapter 8 of the Environmental Statement and its Appendices describe the air quality impacts of the preferred option associated with the redevelopment of York Street junction. The assessment considers the effects on Local and Regional air quality in accordance with the methodology for a 'Detailed' and 'Simple' assessment respectively, as stated within the DMRB Advice Note HA 207/07.

Part III of the Environment (Northern Ireland) Order 2002 establishes a statutory duty upon Northern Ireland district councils to periodically review, assess and manage air quality for a range of common ambient pollutants. A series of health-based standards for these pollutants, that are designed to protect the public and the environment, are detailed within the Air Quality Strategy for England, Scotland, Wales and Northern Ireland. Accordingly, this Unit on reviewing the report focused primarily upon the assessment of ambient pollutants prescribed within the Air Quality Strategy for England, Scotland, Wales and Northern Ireland and the Air Quality Standards Regulations (Northern Ireland) 2010.

The consultant has used Cambridge Environmental Research Consultant's Atmospheric Dispersion Modelling Software (ADMS- Roads V3.2.4) to quantify local pollution levels at 18 relevant receptor locations. Additional predictions have also been obtained as set out in the DMRB approach to 'simple' assessment methods to consider regional emissions. Nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub> & PM<sub>2.5</sub>) background data for the modelling studies has been derived from data published by the Department of Environment, Food and Rural Affairs (Defra).

### **Report Findings**

#### **Operational Impacts:**

The URS report has demonstrated that the proposed scheme would result in localised changes in emissions as a result of modification to the existing road layout and associated traffic redistributive effects, the changes in concentrations would generally be of an imperceptible or small magnitude, in terms of both increases and decreases in exposure. In the assumed year of Opening (2021) and the Design year (2035), predicted annual mean concentrations of nitrogen dioxide and particulate matter would be below national air quality objective values at all assessed sensitive receptors for both the Do-Minimum and Do-Something scenarios. Overall, there would be no significant effect on either local or regional air quality as a result of the Proposed Scheme.

#### **Construction Phase Impacts:**

Adverse effects on amenity and local air quality due to fugitive emissions of dust, particulate matter and construction related traffic movements are not considered to be significant and would only be of local concern during the construction phase.

## Comments

The M1/Westlink Corridor including the York Street junction is declared as an Air Quality Management Area for predicted exceedences of the nitrogen dioxide annual mean air quality objective and also the nitrogen dioxide 1 hour mean objective.

As a key member of Belfast Air Quality Steering Group, BCC have been working closely with DRD on the development of a new Air Quality Action Plan for the city and York Street Interchange has been identified as one of the measures to include in the new plan to improve air quality in that area. The scheme is considered as a means of reducing localised emissions on connecting roads (i.e. as a result of relieving a significant congestion hotspot) and, to a lesser extent, incremental reductions in background emissions, which of course will have a wider impact on exposure. This Unit will continue to review and assess air quality within this location as part of our statutory duties under Part III of the Northern Ireland the Environment (NI) Order 2002.

Accordingly, based upon the findings of the URS report, this Unit is satisfied that no exceedence of the air quality objectives will occur at relevant receptors. As a result, this Unit has no concerns regarding the air quality impacts of the proposed scheme on receptors and would support the scheme in relation to health benefits it has the potential to deliver.

## **Noise and Vibration Impacts**

### **Belfast City Council Environmental Protection Unit Technical Comments**

This Unit notes the URS detailed study area for the quantitative assessment of noise impacts has been defined as comprising a 400m buffer around the Proposed Scheme design.

URS presents results of ambient noise monitoring undertaken at six monitoring locations they identify as representative of sensitive receptors potentially impacted by the proposed scheme.

The noise and vibration assessment examines both the potential operational impacts from the proposed scheme once operational (for both the assumed year of opening of 2021 and fifteen years later in 2035) and the potential impacts from noise and vibration during the construction phase (expected to last 3 years).

### **Operational Impacts**

#### **Report findings:**

Calculations carried out and presented in the URS noise and vibration assessment report demonstrate that in the absence of the proposed scheme, road traffic noise levels in the 400m study area generally increase slightly from the baseline year to the future assessment year, due to the general increase in traffic flows over time.

With the scheme in place the URS report advises that the vast majority of properties will undergo a negligible increase in daytime traffic noise in the long-term from 2012 Do-Minimum to 2035 Do-something scenarios. In addition, the URS report advises that a small number of residential properties adjacent to the proposed scheme were predicted to experience an increase in noise levels that may meet the criteria for provision of insulation (as defined in the Noise Insulation Regulations (Northern Ireland) 1995).

However, the report advises that the provision of mitigation in the form of noise barriers located along a section of proposed fence line adjacent to the northbound and southbound carriageways of the Westlink would ensure that predicted increases in noise levels experienced at these properties would be reduced to such an extent that they are no longer predicted to meet the Noise Insulation Regulations (NI) 1995 criteria. In addition, the URS report advises it is proposed to use low noise road surfacing on interchange links between the Westlink, M2 and M3 and the slip roads from these to the local road network

#### **Comments:**

It is noted that the conclusions of the operational noise impact assessment advise that no properties have been predicted to meet the eligibility criteria of the Noise Insulation Regulations.

This Unit requests that the applicant demonstrates by way of a Verification Report once the scheme is operational that further assessment has been carried out to confirm/inform initial predictions whether or not properties within the identified study area meet eligibility criteria under the Noise Insulation Regulations.

The URS report advises it will be important to take into account the Environmental Noise Directive (END) but offers no further discussion.

- The applicant should be aware that any future Noise Action plans drawn up to meet the requirements of END will need to be reviewed and amended in light of the Proposed Scheme.
- The Unit directs the applicant to seek comments from DoE (Environmental Policy Unit) as the competent authority in respect of meeting the requirements of END.

The afore-mentioned Verification Report should demonstrate liaison with the relevant competent authority (Department of the Environment) and identify any required noise actions arising out of compliance with the Environmental Noise Directive.

### **Construction Phase Impacts**

#### **Report Findings:**

The URS report presents information relating to the potential noise and vibration impacts during construction. Relevant British standards and guidance are referred to in the report to determine impacts over and above recommended limit values (based on a 12-hour daytime limit). The report indicates there will be noise impacts in excess of the good practice guideline limits if work proceeds without mitigation measures. A number of industry good practice measures are presented in the report which should be implemented where possible during construction.

#### **Comments:**

While it is noted that the potential noise and vibration impacts during construction will be short-term, there is concern that there is potential for a high level of complaints due to noisier elements of the construction phase and *likely perceived* disturbance and structural damage from piling activities. It is noted that the URS report advises that the vibration impacts as a result of piling activities are predicted to be within the guideline limits for daytime but no night time piling work is to take place as guideline limits are not predicted to be met for night time.

Even when within guideline limits, vibration from piling is often perceived by sensitive receptors as alarming and often generates a significant number of complaints. It is noted in the URS report that driven precast concrete piling is proposed in proximity to residential receptors.

This Unit advises the following **additional information** should be presented once available:

- Submission of a regularly updated CEMP – (Construction Environmental Management Plan). This Unit recommends that DRD instruct the appointed Contractor to liaise closely with Belfast City Council in communicating details of the various phases of work demonstrating how good site practices will be adopted in order to mitigate construction noise and vibration impacts. This should include details of noise reduction methods to be employed during piling activities;

- Documentation demonstrating the feasibility of the chosen method of piling;
- Further information relating to the removal of existing noise barriers as part of the construction phase and details of proposed temporary alternatives;
- A proactive strategy aimed at reassuring residents in advance of any piling operations is also recommended. Evidence of feasibility study for the chosen method of piling should be appropriately documented;
- Significant night time works have been identified as likely to be required. Details of proposed night time works required as part of the construction phase should be communicated to Belfast City Council well in advance of any such proposed works with proposed mitigation measures clearly identified;
- Early communication and engagement with communities likely to be impacted by noise and vibration impacts during the construction phase will be an essential element of managing complaints. This Unit seeks confirmation, by the applicant or contractor that a community liaison officer has been appointed to deal with complaints and focus on community engagement/ consultation in relation to the construction phase.

## **Land Contamination**

### **Belfast City Council Environmental Protection Unit Technical Comments**

#### **Information Reviewed**

This Unit has reviewed the Environmental Statement prepared by URS for the proposed York Street Interchange scheme titled '*York Street Interchange. Proposed Scheme Report: Part 1. Environmental Statement, January 2015*'.

URS have addressed matters relating to land contamination within Chapter 17 of the report '*Geology & Soils*' and also made reference to contamination in the context of surface water and groundwater quality in Chapter 16 '*Road Drainage & The Water Environment*'.

In order to aid in understanding the likely impact of the development with respect to land contamination and possible remediation works, URS has completed a Contaminated Land Risk Assessment (CLRA). This has been completed in accordance with the methodology presented in relevant industry guidance, CLR11 *Model Procedures for the Management of Land Contamination* (EA, 2004).

#### **Findings Presented**

The CLRA firstly included the completion of a Preliminary Risk Assessment (PRA). The PRA identified a number of potentially contaminating land uses in the vicinity of the site and included the construction of a Conceptual Site Model (CSM) of possible pollutant linkages. The PRA identified a number of historical manufacturing works and fuel storage facilities in the vicinity.

Following the PRA, data on the chemical composition of the underlying soils and groundwater, and on the generation of ground gases, were collected during a site investigation undertaken in the vicinity of the proposed scheme. It is understood that these data were subsequently assessed using relevant current guideline values in order to assess possible contamination risks.

In relation to human health, the risk assessment concludes that '*the risk to human health with respect to current users of the site, construction workers as well as ground gas generation to potential receptors is considered to be very low*' (Section 17.5.7.4.5). Furthermore the report goes on to conclude that '*based upon the assessment of information available to date, it is not anticipated that specific remediation would be required at the site*' (p594).

The report acknowledges that there are inherent uncertainties in CLRAs and that '*while ground investigations have been undertaken, the potential for localised areas of unidentified contamination cannot be discounted*'. On this basis, the report presents recommendations for addressing any unidentified contamination encountered during construction through additional sampling, assessment and appropriate materials handling as necessary.

The report also goes on to acknowledge that a 'Slight/Moderate Beneficial' environmental impact could result from any remediation or mitigation measures which would be undertaken.

#### **Comments**

The EPU welcomes that the proposals have been supported by a CLRA which has generally been undertaken in line with current relevant industry guidance. The proposals for addressing contamination encountered during construction are also welcomed.

It is noted, however, that the data upon which the abovementioned conclusions have been drawn have not been included in the report and no details of the specific guideline values used to complete the assessments of the data are presented. The EPU cannot therefore fully appraise the appropriateness of the work completed and the conclusions presented. The EPU would require to see all relevant technical data before it can be satisfied that the conclusions drawn are valid.

Furthermore, the EPU has some concerns that all pathways associated with the potential exposure of site users and users of adjacent sites have not been fully considered. Some elevated levels of Total Petroleum Hydrocarbons (TPH) were detected within groundwater beneath the site, however, no specific quantitative assessment of the potential risks posed by vapour inhalation from these contaminants appears to have been presented.