

Welsh Government

M4 Corridor around Newport

December 2016 Environmental
Statement:

Appendix SR11.3

Land Contamination Management
Strategy

M4CaN-DJV-EGT-ZG_GEN-AG-EN-0001

At Issue | December 2016

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1 Introduction

1.1 Background

- 1.1.1** A new section of motorway is proposed by Welsh Government. The selected option will be approximately 23 km in length, passing to the south of Newport and crossing Newport Docks on an elevated section and bridge over the docks. The road is subject to planning approval under the Highways Act 1980.
- 1.1.2** The new section of motorway corridor and associated Compulsory Purchase Order (CPO) land will include several areas of land with a documented potentially contaminated history use. Some of these areas include material disposal and lagoons associated with a major steel works (now TATA Steel). The road also passes close to other areas of regulated landfill. Areas of made ground and pre-environmental legislation "landfill" will also be present in some areas, notably the wider Newport Docks area.
- 1.1.3** Contamination of regulatory and sub-regulatory concern may thus be encountered within some soils and some Controlled Waters (principally groundwater and surface waters) that are within the CPO area. Such contamination may also extend beyond the CPO boundary in soils and/or water, both sides of the route corridor. This may include contamination that is not currently known or regulated, and some that will be known and perhaps registered and/or regulated via legislation such as former Control of Pollution Act (CoPA) or Waste Management Regulations, or current Environmental Permitting Regulations.
- 1.1.4** Several ground investigations have been undertaken in recent years along the route including a supplementary ground investigation carried out on behalf of Welsh Government between January and April 2015.
- 1.1.5** It is not the purpose of this position statement to examine any detailed aspect of contaminative site condition, road scheme or remedial design, or environmental protection legislation.
- 1.1.6** The purpose of this document is to help establish a set of guiding principles that Welsh Government, Natural Resource Wales, Newport and Monmouthshire Local Authorities and other regulatory agencies will apply, where practical and legal, such that all parties can understand how the various strands of legislation and statutory guidance will be applied to this particular scheme and to the variety of site-area specific circumstances that may arise.
- 1.1.7** This will assist all parties to examine and assess each site specific case, enabling detailed sustainable designs to be delivered, with minimal delays and to avoid hitherto unidentified issues that may be significant for the satisfactory delivery of the Scheme. It will help to clarify responsibilities and thereby promote early risk mitigation. It will also help to inform Welsh Government's long term responsibilities associated with CPO land ownership.
- 1.1.8** It is hoped this document will help remove uncertainty concerning the requirement of the design to mitigate unacceptable impacts arising from existing site contamination in the vast majority of site specific circumstances.

1.1.9 This position statement should enable all stakeholders (regulators, client, contractors and their designers) to understand the land and water quality outcomes the new road has to deliver in respect of environmental protection and betterment. Through providing statements that seek to inform how the juxtaposition of risk based contaminated land concepts and hazard based concepts of waste management will be regulated, re-use of suitable materials should be better supported, aiding to reduce waste and increase sustainability. This can best be delivered via a well-informed and integrated design of the road construction itself. A sustainable design in respect of land contamination should be secured as a result, with the minimum of waste requiring final off-site disposal, and the appropriate protection of both human health and the environment.

2 Land Contamination Management Strategy

- 2.1.1** Matters relating to historic contamination along the route within the Compulsory Purchase Order (CPO) will be regulated on a risk basis, in accordance with Model Procedures for the Management of Land Contamination (CLR11) (2004) and in accordance with the objectives of the Water Framework Directive where reasonable and legal to do so.
- 2.1.2** Other than materials that are currently subject to Environmental Permitting Regulations or other form of regulatory intervention (via advanced disclosure), all materials (including water) within the CPO area, whether deemed to be of historic disposal origin or otherwise will be regulated as potentially contaminated ground (not waste). Subject to risk based, suitable-for-use assessment such materials may be available for potential incorporation into the permanent works.
- 2.1.3** Where appropriate, planned re-use of suitable materials should be in accordance with CL:AIRE Definition of Waste Development Industry Code of Practice (v2 011) (DoWCoP). Suitable for use can be local area specific taking into account the sensitivity of relative receptors. Acceptability criteria may therefore be different, from one location to another, and be defined by site area-specific risk assessment of credible contaminant linkages. Materials not suitable in one location may be in another, and movement of suitable materials within the CPO area must be in accordance with CL:AIRE DoWCoP and be controlled via a developed Materials Management Plan (MMP). A framework for the management, handling and treatment necessary to enable full recovery of wastes regulated under the Environmental Permitting Regulations will be agreed with NRW.
- 2.1.4** To deal with some contamination treatment of contaminated materials, in-situ or ex-situ, to render the chemical characteristics suitable for use may be required. Such treatment of materials will require Mobile Treatment Permit(s) (MTP).
- 2.1.5** Provided suitable for use criteria are fully met, materials that may have initially required regulation as waste, once incorporated into the permanent works in accordance with the pre-planned design shall be deemed “fully recovered”. Additional regulation as waste will not be required.
- 2.1.6** Remedial action delivered by the form of a road design or as a standalone action, will be required in circumstances where land would be statutory contaminated land (Part 2A EPA 1990) and/or risk to relevant receptors would be unacceptable following development.
- 2.1.7** Remedial action shall be applied to address contaminant linkages that present unacceptable risk located within the CPO land.
- 2.1.8** Neither the construction phase nor as-built condition (Permanent Works) shall cause an unacceptable increase in risk from that presented by existing contamination and existing contaminant linkages.
- 2.1.9** Neither the construction phase nor operational phase shall cause any new contamination.
- 2.1.10** The form of remedial action and degree of reduction in risk to relevant receptors shall be entitled to consider the historic impairment to receptors beneath the CPO land and local to it and apply the Best Practicable Environmental Option (BPEO)

principle. However, in applying cost/benefit analysis, at all times the objectives of the Water Framework Directive and associated River Basin Management Plans (Severn River Basin District) and guidance within Groundwater Protection: Principles and Practice (GP3) (2013, version 1.1) shall provide the reference point to inform the objectives of remedial design and success criteria to be delivered.

- 2.1.11** The Project Team will endeavour to implement the Scheme such that it would not prohibit future remediation needed to be carried out on the Local Authorities behalf on third party land that is determined to be Contaminated Land under Part 2A EPA 1990.
- 2.1.12** Materials planned for re-use that subsequently do not satisfy re-use criteria will be regulated as waste.
- 2.1.13** Risks to human health will include a generic risk assessment that will utilise Suitable 4 Use Levels (S4ULs)¹ to compare soil sample chemical concentration levels. Further detailed risk assessment and/or remedial action will be undertaken should soil concentrations levels be higher than S4ULs.
- 2.1.14** An appropriate compliance point(s) will be agreed with Natural Resources Wales for use in any detailed quantitative groundwater risk assessments.
- 2.1.15** A remediation strategy would be agreed with the Local Authorities and NRW prior to construction and regular updates will be provided to these regulators during the construction stage of the project. Should unexpected and unanticipated levels of contamination be identified during construction such discoveries will be discussed with the regulators. A Remediation Verification Report will be prepared and provided to the regulators following completion of the remediation works.

2.2 Parties to this Land Contamination Management Strategy

- 2.2.1** The following individuals have been involved in preparing the Position Statement:
- Andy Clifton (RPS), M4CaN Contaminated Land Lead;
 - Richard Graham (RPS), M4CaN Water Environment Lead;
 - Matthew Llewellyn (Natural Resources Wales), Technical Officer (Contaminated Land);
 - Jessica Poole (Natural Resources Wales), M4 Coordinator
 - Peter Mackintosh (Newport City Council), Senior Scientific Officer; and
 - Paul White (Monmouthshire County Council), Contaminated Land Officer

¹ The C4SL for lead and Soil Guideline Value for dioxins, furans and dioxin-like PCBs are used in the absence of relevant S4ULs.