Welsh Government

M4 Corridor around Newport

Environmental Statement Supplement Volume 3: Appendix R18.1 Register of Environmental Commitments Update

M4CaN-DJV-EGN-ZG_GEN-RG-EN-0001

ES Supplement | September 2016

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Longross Court,
47 Newport Road,
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Register of Commitments

Notes: Under 'Owner', Designer includes Environmental Consultant

The Register of Commitments is a draft document until finalised.

This draft – Rev A - additions and amendments to the Register since its publication in the Environmental Statement (as Appendix 18.1) on 10th March 2016 are shown in bold and have a reference number greater than 94.

See Notes at the end of the document for further details of 'when required'.

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
	M4 Corridor Around Newport: The Plan					
1	Climate change implications, such as increased rainfall and warmer summer temperatures, will be considered during the design, construction and maintenance of the highway and highway structures. During scheme development, the design and alignment of the highway will be influenced by the results of a flood consequences assessment, which will consider the potential effects of climate change.	The Plan, p.35				Included in design, see ES Chapter 2 & 16 and Appendix 16.1
2	Sustainable urban drainage systems (SUDS) and porous surfaces will be integrated into the design to reduce the risk of flooding and increase infiltration. Attenuation ponds will be incorporated along the highway to receive surface runoff from the highway. These will be designed to attenuate predicted increases in rainfall thus reducing potential flood risk.	The Plan, p.35				Included in design, see ES Chapter 2 & 16
3	Connectivity will be provided for commuting and foraging protected species; including provision of underpasses, overpasses and lighting strategies as required.	The Plan, p.36				Included in design, see ES Chapter 2 & 10

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4	Attenuation ponds will ensure surface water runoff will meet Water Framework Directive (WFD) and SSSI requirements prior to entering the SSSI reen network.	The Plan, p.36				Included in design, see ES Chapter 2 & 16
5	Scheme design will provide mitigation for both water quality and water volume.	The Plan, p.37				Included in design, see ES Chapter 2 & 16, and Pre-CEMP (ES Appendix 3.2)
6	Provision of new reens will provide replacement water storage capacity.	The Plan, p.37				Included in design, see ES Chapter 2 & 16
Strategic Habitats Regulations Assessment (SHRA)						
7	Effective construction techniques to avoid or minimise noise or vibration. These measures would be set out within the CEMP. • Integration of 'noise breaks' into the piling programme if required. • Test piling would be undertaken to determine potential vibration effects in advance of any piling works. These measures would be set out in the CEMP.	SHRA, p55		Before start of construction		Included in Buildability Report (ES Appendix 3.1)
8	Mitigation measures identified to meet conservation objectives of the SHRA with regards to otters: • Provision of a means of escape for large excavations. These measures would be set out in the CEMP. • Provision of replacement holts or hovers if required.	SHRA, p.55		Before start of construction		Included in design, see ES Chapter 2 & 10
9	Mitigation measures identified to meet conservation objectives of the SHRA with regards to the Severn Estuary SAC, SPA and Ramsar Site: • Effective design to maintain hydrological connectivity of the reen systems during construction and operation.	SHRA, p.57		Before start of construction		Included in design, see ES Chapter 2 & 16

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
10	Mitigation measures identified to meet conservation objectives of the SHRA with regards to wintering bird assemblages: • Implementation of effective measures to discourage birds from using construction areas. These measures will be set out in the CEMP.	SHRA, p.58		Before start of construction		Included in design, see ES Chapter 2 & 10, Buildability Report (ES Appendix 3.1) and Pre-CEMP (ES Appendix 3.2)
Strategic Environmental Assessment Post-Adoption Statement (SEA PAS)						
11	Noise and Vibration Mitigation Measures: • Use low noise surfaces to reduce noise pollution, particularly in areas close to population and in sensitive areas; • Use noise barriers, bunds and secondary glazing to screen noise sensitive receptors where necessary. • Improve performance of noise control during construction and maintenance activities; • Manage temporary residual noise effects. • Consider noise nuisance when developing speed management strategies, HGV management pans and event management plans.	SEA PAS, p.32		Before start of construction		Included in design, see ES Chapter 2 & 13, Buildability Report (ES Appendix 3.1) and Pre-CEMP (ES Appendix 3.2)
12	Water Mitigation Measures: • Locate site compounds away from surface water features and watercourses/ Drainage must be designed to avoid transfer of potential spillages to surface and groundwater.	SEA PAS, p.36		Before start of construction		Included in design, see ES Chapter 2 & 3, Buildability Report (ES Appendix 3.1) and Pre-CEMP (ES Appendix 3.2)
13	Cultural Heritage Mitigation Measures: • An Assessment of the Significance of Impacts of Development on Historic Landscape (ASIIDOHL2)	SEA PAS, p.38/39			Completed March 2016	See ES Appendix 8.3

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	would be undertaken at project level to further identify effects on heritage landscape.					
14	Landscape and Townscape Mitigation Measures: • Signage should, where possible, avoid urbanisation of rural areas. Ideally, areas of the scheme across the Gwent Levels would not be lit.	SEA PAS, p39		Detailed design		Included in design, see ES Chapter 2 & 9
SEA NTS						
15	During any construction works, access to any property, facilities or services would be maintained. Any required route diversions would aim to maintain good access and connections.	SEA NTS, p19				Included in design, see ES Chapter 2 & 3, Buildability Report (ES Appendix 3.1) and Pre-CEMP (ES Appendix 3.2)
16	During construction best practice techniques would be employed to avoid detrimental effects on local water bodies.	SEA NTS, p22				Included in design, see ES Chapter 2 & 16, Buildability Report (ES Appendix 3.1) and Pre-CEMP (ES Appendix 3.2)
WelTAG Stage 1 & 2 Report (Scheme Level)						
17	Main watercourses will be culverted where they coincide with the highway, or minor watercourse and reens may be diverted as required, to maintain water transfer and to provide water storage capacity.	WelTAG Report, p232				Included in design, see ES Chapter 2 & 16
DMRB Stage 2 Environmental Report						
18	There would be a commitment to provide alternatives and incorporate provision for pedestrians, cyclists and	DMRB Stage				Included in design, see ES Chapter 2

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	equestrians that facilitates movement along and across the scheme in accordance with established and planned networks.	Report, p6				& 14
Environmental Statement						
19	Rights of way would be maintained or diverted wherever practicable during the construction period.	Pre-CEMP S2.3	Contractor PLO	During construction		
20	Normal working hours would be 0700 to 1900 Monday to Friday and 0700 to 1500 on Saturdays, excluding public holidays. Any working outside the normal hours would be agreed with the local Environmental Health Officer and local residents would be informed. Site working hours would be closely managed and all operatives and staff would be informed of the site working hours during site induction.	ES Chapter 3 Pre-CEMP S2.4	Contractor PLO	During construction		
21	Temporary fencing would be established around new section of motorway to mark the temporary boundary during the construction phase. Areas out of bounds to construction activities would also be fenced off or suitably demarcated to ensure that plant and machinery cannot enter. The specific type of fencing would be agreed pre-construction with the relevant land owner/tenant/business user.	Pre-CEMP S2.5	Contractor	During construction		
22	The main compound and strategic satellite compounds would have 24-hour security. The compounds would be manned during the day to manage the entry/exit of site vehicles and personnel. At night, the compounds would be secured and patrolled by security guards and/or CCTV	Pre-CEMP S2.6	Contractor	During construction		
23	An Environmental Management System (EMS) would be established for the Scheme and would be managed by the Environmental Clerk and Works/Environmental Manager. The EMS (or its components) will be reviewed every 6 months.	Pre-CEMP S3.1	WG Contractor Designers	During construction		

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24	Construction staff will be responsible for adhering to the requirements of all relevant consents/permits etc. A legislation register is provided and will be reviewed and updated during the Scheme as required. Construction activities would be undertaken in accordance with best practice guidelines.	Pre-CEMP S4	Contractors	During construction		
25	Regular liaison and consultation with consultees would continue in order to develop and appropriate mitigation.	Pre-CEMP S4.4	Welsh Government Contractor Designer	During construction		
95	**The Scheme will be constructed in accordance with the design as set out in the ES, the ES Supplement and other relevant design documents.**	**NRW letter of 04/05/16 (p84)**	**Welsh Government Contractor Designer**	**During construction**		
96	**A CEMP will be produced prior to construction following the basis of the Pre-CEMP. The CEMP will be discussed with NRW prior to implementation.**	**ES various** **NRW letter of 04/05/16 (p33 & 92)**	**Contractor, Designer**	**Before construction**		
97	**General inspections and maintenance of the motorway, structures, drainage, WTAs and landscape/soft estate areas would take place regularly**	**ES Ch 2**	**Welsh Government**	**During Operation**		
98	**The existing and replacement reens and field ditches would be maintained on a regular basis including clearing out of debris bi-annually.**	**ES Ch 2**	**Welsh Government**	**During Operation**		
99	**No works in the no entry zone at the PCB cell on the east side of the Usk Crossing.**	**ES Ch 2**	**Contractor**	**During construction**		
100	**Welsh Government and the M4CaN contractor will continue to liaise with NRW on the development of the Drainage Strategy (including, but not confined to phasing of reen replacements, detailed culvert designs, use of tilting weirs) and NRW's drainage requirements will be addressed to NRW's satisfaction.**	**NRW letter of 04/05/16 (p25 & 27)**	**Welsh Government Contractor, Designer**	**Pre-construction**		

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101	**Welsh Government will discuss and agree with NRW management responsibility of the new reens, ditches, culverts and water control devices.**	**NRW letter of 04/05/16 (p26)**	**Welsh Government**	**Before completion**		
102	**A general environmental monitoring strategy will be developed in conjunction with NRW and other appropriate bodies.**		**Welsh Government, Designer, Contractor**	**Pre-construction**		
103	**As part of a general environmental monitoring strategy trigger levels for ongoing construction and operation monitoring will be agreed and a protocol for reporting any problems quickly.**	**NRW letter of 04/05/06 (p61)**	**Designer, Contractor**	**Pre-construction**		
Site Access and Traffic						
26	All access and egress points from the local highway to the construction works area would be kept clear and where required, wheel wash facilities would be provided to ensure that the highway is kept free of mud. The access points from the local highway would avoid residential areas. T	Pre-CEMP S6.1	Contractor	During construction		
27	The haul roads would be maintained to an adequate condition to ensure they remain fit for use by the appropriate construction vehicles. Temporary pipes would be installed within the existing reens and ditches early in the construction programme to maintain connectivity of the watercourses and to provide temporary plant crossings.	Pre-CEMP S6.1	Contractor	During construction		
28	During construction, surface water runoff from the embankments would be managed by capture and settlement before being released to the existing reen system.	Pre-CEMP S6.1	Contractor	During construction		
29	Measures would be adopted to reduce the spread of mud and dust by site vehicles by delivery vehicles. A site speed limit of 10 mph would be imposed and movements	Pre-CEMP S6.1	Contractor	During construction		

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	of construction traffic around the site would be minimised through the use of designated haul routes.					
30	Measures to minimise impacts from dust and air quality nuisance would be developed into a Dust Management Plan (DMP), which would be implemented throughout the duration of the construction works.	Pre-CEMP S6.1	Contractor	During construction		
Scheme Construction						
104	**All temporary construction works sites would be removed following the completion of works and land would be restored.**	**ES Ch 3**	**Contractor**	**During construction**		
105	**A Public Liaison Officer (PLO) would be appointed prior to the commencement of works**	**ES Ch 3 & 10**	**Contractor**	**Pre-and during construction**		**A PLO (Brian Greaves) is in post**
106	**Before the commencement of any construction works discussions will take place with NRW and access arrangements agreed whereby NRW can continue to undertake, but not be limited to:** • **routine reen, ditch and flood risk management structure management and maintenance** • **emergency works, such as blockage removal and repairs to defences** • **wider compliance and enforcement work within NRW's remit, not directly related to the M4 construction works**	**NRW letter of 04/05/16 (p8 & 30)**	**Contractor**	**Pre-construction**		
107	**Vehicular access would be provided for NRW along the length of the River Ebbw affected by the works, including beneath the west bank under River Ebbw bridge.**	**NRW letter of 04/05/16 (p9)**	**Contractor**	**During construction**		
108	**The phasing of the construction of new reens, ditches and culverts, and the infilling of existing reens and**	**NRW letter of 04/05/16**	**Contractor, Designer**	**Pre-construction**		

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	ditches (including ecological issues) will be discussed with NRW, documented and implemented to their satisfaction.	**(p31)**				
109	**Permanent and construction drainage designs will be reconciled to meet with NRW's requirements.**	**NRW letter of 04/05/16 (p31)**	**Contractor, Designer**	**Pre-construction**		
Air Quality						
31	Communication measures such as the display of contact details of the person(s) responsible for air quality and the development of stakeholder communications plan and a Dust Management Plan.	Pre-CEMP S6.2	Contractor	During construction		
32	All complaints and incidents relating to dust and air quality would be recorded together with details on how to resolve the situation.	Pre-CEMP S6.2	Contractor PLO	During construction		
33	Inspections would occur regularly (daily in areas close to sensitive receptors) to monitor for compliance with the DMP. Results would be logged and continuous monitoring locations would be agreed with the local planning authority	Pre-CEMP S6.2	Contractor	During construction		
34	Site layout would be planned so machinery and dust causing activities are located as far as possible from receptors.	Pre-CEMP S6.2	Contractor	During construction		
35	Solid screens or barriers would be erected around key construction compounds.	Pre-CEMP S6.2 **SIAA S5.4**	Contractor	During construction		
36	Construction practices would avoid generating site runoff of water or mud where possible. Fencing, barriers and scaffolding would be kept clean using wet methods.	Pre-CEMP S6.2	Contractor	During construction		
37	Materials that have the potential to produce dust would be removed from the site as soon as possible, unless the materials are being re-used on site, Stockpiles would be covered and/or seeded.	Pre-CEMP S6.2	Contractor	During construction		

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38	A procedure would be implemented to ensure that the engines of stationary vehicles are switched off. Where practicable, the use of diesel or petrol powered generators would be avoided and mains electricity or battery powered equipment would be used.	Pre-CEMP S6.2	Contractor	During construction		
39	A maximum speed limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas would be imposed and signposted.	Pre-CEMP S6.2	Contractor	During construction		
40	A Construction Logistics Plan would be prepared and implemented to manage the sustainable delivery of materials. Construction staff would be encouraged to use sustainable modes of transport when travelling to the site compounds.	Pre-CEMP S6.2	Contractor	During construction		
41	All cutting, grinding or sawing equipment used during construction of the new section of motorway would be fitted with suitable dust suppression techniques. An adequate water supply would be provided for dust/particulate matter suppression.	Pre-CEMP S6.2	Contractor	During construction		
42	Enclosed chutes, conveyors and covered skips would be used. Drop heights from conveyors, loading shovels and other loading or handling equipment would be minimised and fine water sprays would be used where appropriate.	Pre-CEMP S6.2	Contractor	During construction		
43	Measures specific to demolition: • Soft strip indie of buildings first, retaining walls and windows where possible. • Effective water suppression is used. • Bag and remove or damp down any biological debris prior to demolition.	Pre-CEMP S6.2	Contractor	During construction		
44	Measures specific to earthworks: • Re-vegetate earthworks and exposed areas/stockpiles as soon as possible. Where this is not possible use hessian or mulches as soon as practicable • During construction works remove the cover in small	Pre-CEMP S6.2	Contractor	During construction		

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	areas rather than the all at once.					
45	<u>Measures specific to construction</u>: • Avoid roughening of concrete surfaces (scabbling) if possible. • Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out. • Ensure that bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems. • Ensure that bags of fine powder materials are sealed after use and stored appropriately.	Pre-CEMP S6.2	Contractor	During construction		
46	<u>Measures specific to trackout:</u> • Use water-assisted dust sweepers on the local road to remove, as necessary any material tracked out of the works areas. Dry sweeping of large areas would be avoided. • Ensure vehicles entering and leaving the site are covered to prevent the escape of materials during transport. • Inspect on-site haul routes for integrity and carry out the necessary repairs to the surface as soon as reasonably practicable. Record all inspections and any subsequent action in a site log book. • Install hard surfaced haul routes, which should be regularly dampened down and cleaned. • Where reasonably practicable, implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the works area). • Where the size/layout of the works area permits, ensure there is an area of hard surfaced road between	Pre-CEMP S6.2	Contractor	During construction		

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	the wheel wash facility and the work area exit. • Access gates to be located at least 10 metres from receptors where possible.					
Cultural Heritage						
47	Archaeological and historical features would be protected prior to and during construction.	Pre-CEMP S6.3	Contractor	During construction		
48	Prior to the commencement of construction works, the Archaeological Contractor would prepare a Project Design for the activities identified in the Cultural Heritage Mitigation Plan (CHMP) including detailed method statements. The Project Design would be submitted and agreed by the Contractor's Archaeologist and the Curator appointed by Welsh Government.	Pre-CEMP S6.3 **NRW letter of 04/05/16 (p10)**	Designer Archaeological contractor Archaeological curator	Before construction		As set out in the Cultural Heritage Mitigation Plan (ES Appendix 8.10)
49	<u>Measures for identified cultural heritage remains</u>: Further information would be gathered at a number of locations (as described in the CHMP) and would involve a number of methodologies as set out in the pre-CEMP and the CHMP. The mitigation would be undertaken by one or more experienced specialist contractors	Pre-CEMP S6.3	Designer Archaeological contractor Archaeological curator	During construction		As set out in the Cultural Heritage Mitigation Plan (ES Appendix 8.10)
50	<u>Measures for discovered cultural heritage remains</u>: A program of mitigation will be implemented which could result in the identification of previously unknown cultural heritage assets. The Archaeological Contractor would delineate the area and all workers made aware of its presence. A Further Archaeological Design would be submitted within 5 working days of the discovery which would be agreed by the Contractor's Archaeologist and the Curator prior to the commencement of any mitigation works.	Pre-CEMP S6.3	WG, Contractor, Designer, Archaeological contractor, Archaeological curator	During construction		As set out in the Cultural Heritage Mitigation Plan (ES Appendix 8.10)

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
51	At some locations trial trenches would be undertaken in areas within the Gwent Levels where no archaeological fieldwork surveys have been undertaken. The detailed methodology is set out in the CHMP. Upon completion a report would be prepared to describe the results. Any archaeological remains identified would be classed as 'Discovered Cultural Heritage Remains' and a Further Archaeological Design would be produced (as above).	Pre-CEMP S6.3	WG, Contractor, Designer, Archaeological contractor, Archaeological curator	During construction		As set out in the Cultural Heritage Mitigation Plan (ES Appendix 8.10)
52	Protection of Scheduled Ancient Monument: The standing stone Devil's Quoit would remain in situ and surrounded by a secure fence with appropriate signage. The Contractor's Archaeologist would be informed before any works in the vicinity of the monument were undertaken and the works would be authorised by a permit.	Pre-CEMP S6.3	Contractor, Designer Archaeological contractor Archaeological curator	During construction		As set out in the Cultural Heritage Mitigation Plan (ES Appendix 8.10)
110	**Provision of a new public footpath providing access from the B4245 Caldicot Road to the Bronze Age standing stone at Undy and provision of an information board.**	**ES para 8.8.66**	**Welsh Government, Designer, Contractor**	**During construction**		
111	**Offering the Brooking National Collection the opportunity to acquire fixtures and fittings from the Grade II listed Magor Vicarage ahead of demolition**	**ES App 10.8**	**Designer**	**During construction**		
112	**Pre-demolition detailed recording of the most significant buildings and the basic recording of the less significant structures as set out in the Cultural Heritage Mitigation Plan (Appendix 8.10 of the ES). .**	**ES App 10.8**	**Designer**	**During construction**		**As set out in the Cultural Heritage Mitigation Plan (ES Appendix 8.10)**
113	**An integrated programme of historic landscape analysis will be undertaken to offset some of the impacts on the historic landscape.**	**NRW letter of 04/05/16 (p44)**	**Designer**	**Pre-construction**		
114	**RCAHMW will be offered the opportunity to record the buildings to be demolished.**	**Written response to Cadw**	**Designer**	**Pre-construction**		

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		05/08/16				
115	**All relevant documents relating to historic environment provisions will be shared with Cadw.**	**Written response to Cadw 05/08/16**	**Designer**	**At all times**		
116	**The independent Archaeological Curator should be an MCIfA or work for a CIfA Registered Organisation and should be impartial, qualified, experienced, independent and knowledgeable of the archaeology of the Scheme area.**	**Written response to Cadw 05/08/16**	**Welsh Government**	**At all times**		
Landscape						
53	Existing vegetation would be retained where possible.	Pre-CEMP S6.4	Contractor	During construction		
54	The early re-establishment of vegetation within the highway boundary.	Pre-CEMP S6.4	Contractor	During construction		
55	Re-use the coppiced vegetation wherever possible within the planting areas, especially where a screening function is required.	Pre-CEMP S6.4	Contractor	During construction		
56	Loss of or damage to landscape features (for example, hedges/hedgerows/ hedgebanks, drystone walls, individual veteran trees, woodland, water features or field systems) would be avoided where possible.	Pre-CEMP S6.4	Contractor	During construction		
57	Native species of local provenance would be used wherever possible.	Pre-CEMP S6.4	Contractor	During construction		
58	Careful consideration would be given to the location and design of lighting during construction.	Pre-CEMP S6.4 **SIAA S5.4**	Contractor	During construction		
117	**The 5 year aftercare period for the landscape and ecological elements through an Environmental, Landscape and Ecology Aftercare Plan, the following**	**ES Ch 2 & 9**	**Designer, Contractor**	**During operation**		

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	Handover Environmental Management Plan and the longer-term management regime would be discussed with NRW.	**NRW letter of 04/05/16 (p93)**				
118	**Plant larger tree stock at locations where screening of the scheme from receptors and early integration is the priority.**	**ES Ch 9**	**Designer**	**During construction**		
Ecology and Nature Conservation						
59	**Control Measures**: • **No construction** activity within the wetted channel of the Rivers Usk and Ebbw. • Maintenance of all existing reen connections across the new section of motorway. • Provision of water treatment areas to control the volume and quality of water discharged to the reen system. • Provision of eel passes on all new sluices. • Provision of mammal crossings and ledges within culvert design. • Provision of mammal exclusion fencing along construction and operational areas. Mammal crossings would be provided were necessary. • Ecological enhancement of land at Maerdy Farm. • Use of woodland soils and rootstocks in planting areas.	Pre-CEMP S6.5 **SIAA S5.2** **NRW letter of 04/05/16**	Contractor	During construction		Included in design, see ES Chapter 2 & 10
60	Construction lighting would be designed and positioned to minimise light spill outside the working area, in particular watercourses, reens and adjoining habitats. .	Pre-CEMP S6.5 **SIAA S5, S6**	Contractor	During construction		

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61	At Berryhill Farm, during clearance of the existing wood, to the extent practicable, coppice stools of hazel and other shrub species would be lifted and replanted in areas of woodland planting to the east of New Park Farm north of the new Castleton Junction in an area which would not otherwise be disturbed. Woodland topsoil from this wood would also be stripped and placed in new planting areas to encourage the establishment of the woodland ground flora.	Pre-CEMP S6.5	Contractor Ecological contractor	During construction		
62	**Reens**: • The methodology for the excavation and installation for new culverts along reens and selected field ditches is described in the Buildability Report for Levels Section (ES Appendix 3.1). • Where practicable, the layout of areas of land identified for temporary construction areas would avoid existing reens and ditches. • Subject to approval by NRW, the process of recolonisation of replacement reens and ditches by aquatic vegetation and invertebrates would include the use of materials removed from other reens. • Any watercourses permanently severed from the network consideration would be given to the translocation of fish. • Care would be given to avoid trapping fish during dewatering of reens.	Pre-CEMP S6.5	Contractor Ecological contractor	During construction		
63	**Subject to further discussion** piling to install the cofferdam and pylon piles for the east pylon of the River Usk Crossing would be scheduled to avoid the period of highest sensitivity for underwater noise related impacts on migratory fish in the River Usk (March to June inclusive). Piling activities would not take place one hour either side of high water.	Pre-CEMP S6.5 **SIAA S5.2. S6.2** **NRW letter**	Contractor	During construction		

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		of 04/05/16 (p16)				
64	**Breeding Birds** • No habitat containing an active nest would be disturbed and appropriate measures to protect any active nest would be set in place as directed by an appropriately experienced ecologist. Buffer zones will be implemented and maintained until it is confirmed that the young have fully fledged. • Management of vegetation which may have the potential to be of value to breeding birds would be undertaken outside of the breeding season (March to August inclusive). When this is not possible a visual inspection for active nests would be undertaken immediately prior to works being carried out. When a visual inspection is not possible a dawn to 9am survey will be undertaken. If it is inconclusive as to whether an active nest is present a precautionary approach will be assumed.	Pre-CEMP S6.5	Contractor Ecological contractor	During construction		
	Bats • Where management of mature trees is required, a survey in order to assess the potential value for roosting bats would be undertaken prior to the commencement of works and an NRW licence would be required if a roost is present. • Felling of trees and demolition of buildings of known or probable value to roosting bats would be undertaken in accordance with a European Protected Species Licence, which would be obtained prior to the commencement of the works. Pre-construction surveys would be undertaken to determine the presence of roosts. • Replacement bat roosts would be provided including	Pre-CEMP S6.5 **ES Ch 10** **SIAA S5.6**	Contractor	During construction		

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	bat boxes and bat houses. • The construction of crossing points and planting of landscaping would be carried out as soon as practicable during construction. Artificial bat corridors would be used prior to planting becoming established.					
65	**Water Voles** For all watercourses known to support water voles, a detailed method statement would be agreed with NRW and, as necessary, an NRW licence would be obtained prior to the commencement of works. Prior to any works commencing within 8m of a watercourse, a survey will be undertaken to identify if water voles or their burrows are present.	Pre-CEMP S6.5	Designer, Ecological contractor	During construction		
66	**Dormouse** The trapping and translocation of dormice would be undertaken in accordance with a European Protected Species licence and associated method statement. Where no receptor site (as approved by NRW) is found then dormice would be cared for in captivity until a suitable habitat has been enhanced or created.	Pre-CEMP S6.5	Designer, Ecological contractor	During construction		
67	**Badgers** Three artificial setts would be created prior to the closure of three known active sets in accordance to the requirements of an NRW licence. Pre-construction surveys will identify any new setts or badger activity and artificial setts would be provided for any further displaced badgers.	Pre-CEMP S6.5	Designer, Ecological contractor, Contractor	Before main construction		
68	The measures set out in the Gwent Levels SSSI Mitigation Strategy will be agreed with NRW, and once agreed will be implemented.	Pre-CEMP S6.5 **SIAA S5.4**	Designer, Ecological contractor, Contractor	Before main construction		As set out in SSSI Mitigation Strategy (ES Appendix 10.35)
119	**Biosecurity Works (including surveys and monitoring visits)**	**ES Ch 10**	**Designer, Ecological**	**Before main construction**		

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
	would be undertaken in accordance with a biosecurity risk assessment and safe system of work, a copy of which would be included in the CEMP following the principles set out in the Pre-CEMP (Appendix 3.2). The risk assessment and safe system of work would take into account species-specific guidelines for management and control of non-native invasive species produced by the Non-Native Species Secretariat (NNSS) and NRW.	NRW letter of 04/05/16 (p35 & 92)	contractor, Contractor			
120	Further bat surveys will be undertaken to further inform the detail of any European Protected Species Licence.	ES Ch 10	Designer	In 2016		
121	Barn Owl • Further survey will be carried out pre-construction to confirm the status of any potential barn owl nest sites. • Barn owl nest boxes would be provided in trees around the boundaries of the mitigation land at Green Moor (chainage 17900 to 19100) in the same area as the potential barn owl nest but further from the construction area and also within the SSSI mitigation areas (Appendix 10.35).	ES Ch 10	Designer	Pre-construction		
122	Water vole Mitigation measures designed to displace or translocate water voles from working areas (excluding temporary access routes) to favourable receptor sites prior to the commencement of construction would be set in place in accordance with a water vole Method Statement. The exact area of clearance at any location would be determined with regard to habitats and the type of land use and would be agreed with NRW.	ES Ch 10	Designer Ecological contractor	Before main construction		

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
123	Further dormouse survey will be carried out in 2016 to inform the detail of the European Protected Species Licence Method Statement.	ES Ch 10	Designer	In 2016		
124	Great Crested Newt • In those areas where great crested newt presence was indicated by the eDNA technique, where necessary, population assessment will be carried out in 2016 by conventional survey techniques to further inform appropriate mitigation and the Method Statement to support any European Protected Species application. • Capture and translocation of great crested newt and associated protection measures	ES Ch 10	Designer	In 2016	Sept 2016	Reported in the ES Supplement
125	Winter Birds A winter bird survey for 2015/2016 will be reported to provide data for two full winters.	ES Ch 10	Designer	In 2016	Sept 2016	Reported in the ES Supplement
126	Otter • Further otter survey will be carried out in advance of construction and will inform the detail of any European Protected Species Licence Method Statement. • The works area within the boundary of the River Usk SAC would be kept to the very minimum required. • Site inductions and toolbox talks would include all relevant measures required to protect retained habitat of potential value to otters in the SAC, including the retained habitat corridor along/alongside the channel of the River Usk. • Post-construction habitat replacement as shown on Figure 2.6, Volume 2 and described in Section 10.5 of the ES.	ES Ch 10 SIAA S5.2	Designer, Contractor	Pre-construction		

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
	• Retained habitat surrounding holts and other potential resting places would be protected through works-free buffer zones, fenced as necessary (using construction and/or mammal exclusion fencing). • An emergency procedure protocol to use in the event of encountering an otter or potential otter rest/holt would be given to contractors. Should measures not be possible or practicable the appropriate licences would be obtained from NRW.					
127	Reptiles • Prior to commencement of construction in areas where common lizard and slow worm populations have been identified, reptile fencing would be installed and reptiles would be captured and transferred to suitable habitat on the margin of the Scheme, or to suitable habitat within the SSSI mitigation areas (Appendix 10.35) or elsewhere by agreement. The detailed method statement for the capture and translocation would be agreed with NRW in advance. • Features of potential importance to grass snakes, such as leaf piles, would be identified and where these would be affected by the Scheme would be moved to suitable locations at the Scheme boundary or elsewhere by agreement.	ES Ch 10 NRW letter of 04/05/16 (p55)	Designer, Contractor	Pre-construction		
128	Any excavations that are located outside the mammal exclusion fencing that are more than 0.5 m deep would be fenced individually; covered overnight where practicable; walls would be re-profiled so as to enable mammals and other wildlife to walk out of the excavation; or a means of escape would be provided.	ES Ch 10 SIAA S5.2	Contractor	During construction		

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
129	**Waxcap turf** **The potential for the translocation of waxcap turf from grasslands at Pwll Diwaelod and Pound Hilll would be investigated.**	**ES Ch 10**				
130	**Monitoring** • **Monitoring would be undertaken both during the construction and the operation of the new section of motorway to confirm the effectiveness of mitigation measures, and if necessary, to inform the need for any changes in management of impacts.** • **The mammal exclusion fencing would be monitored throughout the construction phase to ensure that it remains intact. The ECoW would be responsible for ensuring regular monitoring is undertaken and that repairs are made as soon as practicable.** • **The establishment of the landscape elements included in the EMP (Figure 2.6) would be monitored by the Contractor during the construction and maintenance periods. South Wales Trunk Road Agent (SWTRA) would then be responsible for ongoing monitoring and maintenance.** • **Requirements for monitoring of protected species would be set out in the European Protected Species Licence Method Statements and other species Method Statements. This would include monitoring of populations of dormouse, bats, water vole, badger and shrill carder bee.** • **Background underwater noise levels in the vicinity of the Usk crossing and monitoring of underwater noise levels during vibropiling will be undertaken.**	**ES Ch10** **SIAA S5, S6**	**Designer, Contractor**	**During construction and operation**		

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
131	An Environmental Liaison Group (ELG) would be established that would consist of key stakeholders	ES Chapter 10	Designer	At all times		ELG is already established
132	An Environmental Co-ordinator would be appointed for the scheme and would have the primary responsibility for managing environmental issues and ensuring commitments included in the commitments register are included in the CEMP.	Pre-CEMP S7.2 ES Ch 10	Designer	At all times		An Environmental Co-ordinator is already appointed
133	Minimise land take within the Gwent Levels SSSIs, and where practical, avoid land take to the south of the line of the new motorway	ES Ch 10	Designer, Contractor	Pre- and during construction		
134	An appropriate Lighting strategy would be implemented to avoid lighting of the new section of motorway except at junctions and river crossings. Lighting of the River Usk and Ebbw crossings would avoid lighting of the river channel.	ES Ch 10 SIAA S5.2	Designer	Pre-construction		A Lighting Strategy has been prepared
135	Landscape and habitat provisions will be delivered as shown on the Environmental Masterplan (EMP).	ES Ch 10	Designer, Contractor	During construction		
136	The Reen Mitigation strategy will be implemented to minimise impacts on the Reens.	ES Ch 10 SIAA S5.5. S5.4	Contractor	During construction		
137	Bats The following ratio of replacement bat habitat creation would be included: • Unimproved grassland – 7.10 hectares lost: 26.11 hectares of species-rich grassland replacement. • Marshy grassland - 6.86 hectares lost: 13.37 hectares of wet grassland replacement.	SIAA S5.6	Designer, Contractor	During construction		
138	Migratory Fish Measures included in the Surface Water Management Plan, Pollution Prevention Plan and best practice guidelines will be implemented to avoid adverse effects on migrating fish from pollution.	SIAA S 5 NRW letter of 04/05/16 (p15)	Designer, Contractor	During construction		

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
139	**Proposals for the prevention of pollution, both during the construction and operational phases of the new section of motorway, as set out in the SIAA and ES will be fully implemented.**	**SIAA paras 5.2.14 to 5.2.27** **NRW letter of 04/05/16 (p15)**	**Contractor**	**During construction**		
140	**Mitigation strategies and/or method statements, either as part of the ghost licence applications or as standalone reports , will be prepared in respect of dormice, great crested newt, bats, otter, water vole, badger and reptiles.**	**NRW letter of 04/05/16 (p55)**	**Designer**	**In 2016**		
141	**Ghost licence applications will be prepared and submitted to NRW in respect of dormice, great crested newt, bats, and otter.**	**NRW letter of 04/05/16 (p56)**	**Designer**	**In 2016**		
142	**An environmental monitoring strategy for the construction and operational phases will be developed, discussed and agreed with NRW. The strategy will be implemented accordingly.**	**NRW letter of 04/05/16 (p61)**	**Designer, Contractor**	**Pre-construction**		
143	**Once finalised and agreed with NRW the SSSI Mitigation Strategy will be implemented accordingly.**	**NRW letter of 04/05/16 (p71)**	**Designer, Contractor**	**During construction**		
144	**A Dormouse Management Plan will be prepared and implemented**		**Designer**	**Pre-construction**		
Geology and Soils						
69	**Pollution Control** • Fuel, oil and chemicals would be stored in designated and secure locations within the compounds **preventing access by mammals**. The storage areas (which would also house the ancillary equipment)	Pre-CEMP S6.6 **SIAA S5.2**	Contractor	During construction		

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
	would be bunded and lined with an impervious material and have a capacity of 110% of the volume stored. • Secondary containment for drum storage would have a capacity of at least 25% of the drum volume. • Where possible, fuel, oil and chemical storage areas would not be located within 10 metres of a watercourse or 50 metres of a borehole, well or spring, and would be above any flood water level. Leaking, damaged or empty drums would be removed from the compounds/working areas as soon as possible, and disposed via a registered waste disposal contractor. • Spill kits (containing sand or absorbent materials) would be kept close to the storage area. Staff would be trained on how to use the spill kits. Once used, the sand/absorbent material would be disposed via a registered waste disposal contractor. • Refuelling of plant would be undertaken in designated areas on an impermeable surface away from drains or watercourses. All refuelling and bulk deliveries would be supervised, and staff and contractors would receive incident response training. Hoses, valves and pipework would be regularly checked for signs of wear and tear and corrosion. • Security measures would be provided for the storage areas to prevent vandalism and theft. Storage system valves, taps and delivery hoses would be fitted with locks and locked shut when not in use. • Used oils would be stored, transported and disposed of via a registered waste contractor.					

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
70	**Soils** • A Soil Handling Methodology would be prepared for the new section of motorway following the guidance in Defra's Good Practice Guide for Handling Soils (Defra, 2000) and Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009). • Topsoil and subsoils would be stripped separately according to specified depths. The timing of soil striping and handling operations would avoid periods of the wet weather. Multiple handling of soil materials would be minimised to avoid the risk damaging the soil structure. Appropriate soil handling equipment would be used. • Topsoil and subsoil would be stored in separate stockpiles. The stockpiles would be a maximum height of 3 metres (topsoil) and 5 metres (subsoil) and an appropriate slope. The location of the stockpiles would be designed to keep the topsoil and subsoil separate and would not be positioned within the root or crown spread of trees, or adjacent to ditches, watercourses or existing or future excavations. • The stockpiles would be cordoned off from the rest of the works area and protected from construction activities and traffic. Once prepared, the stockpiles would be seeded using a standard Rye Grass seed mix. • **The topsoil from the storage areas would not be stripped, but instead the topsoil would be protected in situ by geo-textile matting.**	Pre-CEMP S6.6 **ES Ch 11**	Designer, Contractor	During construction		

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
71	**Contaminated Land** • Where practicable (i.e. where the materials are geotechnically suitable and do not pose an unacceptable risk to human health or the environment) contaminated materials would be retained and reused within the construction of the new section of motorway. The Remediation Strategy would set out the approach for assessing if the material would be suitable for reuse with or without treatment. The strategy would be implemented using a Materials Management Plan (MMP). • If previously unidentified areas of contaminated land are discovered the procedure would require works to be stopped immediately and the area would be secured to prevent access to site workers, plant and equipment and to prevent the spread of contaminants. Site workers would be given training on how to identify potential contamination. • The Local Authority and NRW would be notified and consulted on the proposed measures to deal with the contamination. • Where it has been agreed by the Local Authority and NRW for works to continue, materials would be managed to minimise the risk of cross contamination.	Pre-CEMP S6.6 **NRW letter of 04/05/16**	Designer, Contractor	During construction		
72	An Unexploded Ordnance Mitigation Strategy would be developed using guidance from 'Unexploded Ordnance: A Guide for the Construction Industry' (CIRIA, 2009).	Pre-CEMP S6.6	Designer, Contractor	Pre-construction		
145	**With respect to areas of contaminated land monitoring of groundwater, surface waters and slope stability would continue for 5 years after the completion of construction.**	**ES Ch 11**	**Designer, Contractor**	**During operation**		

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
146	**Production of a remediation verification report.**	**ES Ch 11**	**Designer**	**Post construction**		
147	**The principles of a 'discovery strategy' in relation to how any previously unidentified contamination would be dealt with will be agreed to NRW's satisfaction.**	**NRW letter of 04/05/16 (p32)**	**Contractor**	**During construction**		
Waste and Materials Management						
73	Opportunities to re-use site won materials would be maximised in accordance with the waste hierarchy defined within the Waste Framework Directive. The re-use of site won materials would be subject to compliance with relevant specification and assessment criteria to ensure engineering suitability and protection of environmental receptors. The assessment criteria would be agreed with the regulators.	Pre-CEMP S6.7	Contractor	During construction		
74	Where necessary, materials would be treated and processed on site to render them suitable for use.	Pre-CEMP S6.7	Contractor	During construction		
75	The re-use of materials would be undertaken in accordance with the Materials Management Plan, which details the assessment criteria for material re-use and details of the proposed locations where materials would be re-used.	Pre-CEMP S6.7	Contractor	During construction		
76	Materials which have to be imported from off site would be sourced from local suppliers where possible. Imported materials are likely to include materials for road pavement construction, aggregates, reinforcing and structural steelwork and concrete.	Pre-CEMP S6.7	Contractor	During construction		
77	Materials that are classified as waste would be managed in accordance with the requirements of the relevant waste management legislation and the 'Duty of Care' obligations.	Pre-CEMP S6.7	Contractor	During construction		
78	The Outline Site Waste Management Plan (SWMP) is a living document which would be updated during detailed design stage and would be implemented during	Pre-CEMP S6.7	Contractor	During construction		

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
	construction. All waste would be managed in accordance to the SWMP and documents would be retained for all waste movement.					
79	Monitoring of the materials used and waste generated from the construction of the new section of motorway would be monitored throughout the construction period through the SWMP and MMP.	Pre-CEMP S6.7	Contractor	During construction		
148	**When unavoidable, transport of materials will be limited to off peak usage on the existing M4 and surrounding local road network.**	**ES Ch 12**	**Contractor**	**During construction**		
Noise and Vibration						
80	Noise monitoring (and vibration monitoring where appropriate) would be carried out as appropriate at or around residential properties during the construction phase.	Pre-CEMP S6.8	Contractor	During construction		
81	Approval would be sought from Newport City Council's Environmental Health Officer, or other regulators, as appropriate to the specific area, in advance of the works commencing. Where the works are agreed, affected residents would be notified of the programme for the intended works.	Pre-CEMP S6.8	Contractor	During construction		
82	Standard best-practice construction working methods would be adopted during the construction phase.	Pre-CEMP S6.8	Contractor	During construction		
149	**A 0.9m solid barrier along central reservation is included in the noise model.**	**ES Ch 13**				
150	**The exact locations, alignments, heights and specification of noise barriers to be developed during the detailed design phase.**	**ES Ch 13**	**Designer**	**Detailed design**		
151	**Programming of works in sensitive ecological areas will be times to avoid noise and vibration disturbance.**	**SIAA S5**	**Designer, Contractor**	**During construction**		
All Travellers						

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
152	**Provision of a temporary diversion for the Wales Coast Path and National Cycle Route 4 during construction (paragraphs 14.9.1 and 14.9.2).**	**ES Ch 14**	**Contractor**	**During construction**		
153	**Temporary diversions would be put in place during construction to mitigate the effects on public footpaths 390/11; 390/15; 390/14; 390/17 and 390/23 (paragraph 14.9.3).**	**ES Ch 14**	**Contractor**	**During construction**		
Community and Private Assets						
83	Agricultural land temporarily used for the construction of the new section of motorway would be reinstated to its former use on completion of the construction period to minimise the effect on farm holdings.	Pre-CEMP S6.9	Contractor	During construction		
84	Farm access points would be maintained wherever possible to limit the short-term severance of accesses to farm buildings and land. Where this is not possible, alternative accesses would be provided early in the construction process.	Pre-CEMP S6.9	Contractor	During construction		
85	Essential services would be maintained throughout the construction period.	Pre-CEMP S6.9	Contractor	During construction		
86	To minimise the risk of disease transmission between farm holdings, best practice construction procedures would be implemented to maintain bio-security.	Pre-CEMP S6.9	Contractor	During construction		
87	Best practice construction procedures would be implemented to reduce the impacts of dust and noise on crops and livestock.	Pre-CEMP S6.9	Contractor	During construction		
88	To minimise the financial loss to the farmer as a result of the removal of land from agi-environmental schemes (and the effectiveness of the scheme), restored agricultural land (temporarily used for construction) would be reintegrated into the agri-environment scheme following consultation with NRW.	Pre-CEMP S6.9	Designer, Contractor	During construction		

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
154	**Provision of exchange land for the temporary and permanent loss of common land along the River Ebbw.**	**ES Ch 15**	**Welsh Government**	**During construction**		
155	**New allotments to mitigate the partial loss of the Green Moor Lane allotments at Magor would be provided.**	**ES Ch 15**	**Welsh Government**	**During construction**		
156	**Adjustments to the construction programme to accommodate harvesting of crops would be made wherever possible.**	**ES Ch 15**	**Contractor**	**During construction**		
Road Drainage and the Water Environment						
89	The mitigation measures outlined in the following documents (appended to the Pre-CEMP) **will be agreed with NRW** and implemented throughout the Scheme: • Pollution Prevention Plan • (Contamination) Discovery Strategy • Surface Water Management Plan • Groundwater Management Plan • Remediation Strategy Report • Piling Risk Assessment	Pre-CEMP S6.10 **SIAA S5, S6** **NRW letter of 04/05/16 (p92)**	Contractor	During construction		
157	**A water sampling regime would be implemented to ensure the settled water achieves the required turbidity parameters.**	**ES Ch 3 & 16**	**Designer, Contractor**	**During operation**		
158	**Pre-construction water quality monitoring would be undertaken at key locations which would be developed through the SWMP.**	**SIAA S6**	**Designer**	**Pre-construction**		
159	**Water quality would continue to be monitored for at least 12 months of operational use of the new section of motorway to demonstrate acceptable quality of the water treatment area discharges.**	**ES Ch 16 NRW letter of 04/05/16 (p85)**	**Designer**	**Post construction**		
Environmental Management						

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
160	**The environmental mitigation, including the requirements set out in the ES, the Assessment of the Impacts upon European Sites (AIES) and the Environmental Commitments Register, would be monitored on a regular basis throughout the five year aftercare period.**	**ES para 18.8.2**	**Designer, Contractor**	**Post construction**		
161	**The aftercare period for the first 5 years (Month of opening + 5yrs) would be the responsibility of the contractor and is covered by the Environmental, Landscape and Ecology Aftercare Plan (ELEAP). Thereafter responsibility for the ongoing long term maintenance would shift to Welsh Government's highway maintenance contractor (currently SWTRA). The Handover Environmental Management Plan (HEMP) would set out the proposed strategy for the future maintenance and management of the environmental mitigation measures for the following 10 year period (Month of opening + 15yrs). NRW would be consulted on both the ELEAP and the HEMP.**	**ES section 18.8 & 18.9** **NRW letter of 04/05/16 (p24, 93)**	**Welsh Government**	**Post construction**		
Emergency Response Plan						
90	A Pollution Incident Emergency Response Plan would be developed in accordance with relevant guidance.	Pre-CEMP S6.10	Contractor	During construction		
91	Emergency procedures would be developed to support the Response Plan. The procedures would define the circumstances when the plan should be activated and include, the names and contact details of staff trained in incident response, clearly defined roles and responsibilities, the types and location of emergency response equipment available, and procedures for recovering spilled product.	Pre-CEMP S6.10	Contractor	During construction		

Ref No	Commitment	Source	Owner, Action Document	When Required	Date of Completion	Objectives/ Actions/Notes
92	All relevant staff would be trained in how and when to contact the emergency services, NRW and other organisations identified in the Response Plan.	Pre-CEMP S6.10	Contractor	During construction		
93	In the event of an emergency, members of the public would be able to contact the site via the 24-hour helpline.	Pre-CEMP S6.10	Contractor PLO	During construction		
Training						
94	All construction staff, including sub-contractors, would receive structured training on the requirements of the Pre-CEMP and the associated environmental control plans. Records of training and those attended would be retained	Pre-CEMP	Designer, Contractor	During construction		

Notes:

1 The following terms in the 'When required' column mean:

In 2016 – during 2016
Before start of construction – before the start of KS6
Detailed design – during KS4 and KS6
Pre-construction – toward the end of KS4, or during the early part of KS6
Before main construction – during the early part of KS6
During construction – any time during KS6
Before completion – before the Scheme is open to traffic
Post construction – within 18 months of the Scheme being open to traffic
During operation – when the Scheme fully operational