WREXHAM POWER LIMITED

The Wrexham (Gas Fired Power Station) Order

6.4.9 Volume 4: Environmental Statement

Appendix 14.1: Water Framework Directive Screening Assessment

Planning Act 2008 The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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Power Station Complex

Water Body	Scheme Component	Objective 1 The proposed scheme will not cause deterioration in the status of the ecological / chemical elements of the water body. Where required detail mitigation proposed.	Objective 2 The proposed scheme will not introduce impediments to the attainment of Good WFD status for the water body. Where required detail mitigation proposed.	Objective 3 The proposed scheme will not compromise the ability of the water body to meet its WFD status objectives. Where required detail mitigation proposed.	Objective 4 The proposed scheme will not cause a permanent exclusion or compromise achieving the WFD objectives in other bodies of water in the same River Basin District. Where required detail mitigation proposed.
Groundwater - Principal Aquifer - Kinnerton Sandstone Formation (very high importance receptor)	Construction - piling, ground disturbance, and fuel spillage	Construction methods may mobilise existing contaminants and create new pathways allowing existing, and construction related, contaminants to migrate into the groundwater body. The magnitude of impact on groundwater quality is considered to be minor adverse and would result in a **significant** effect considering the aquifer is of very high importance. Proposed mitigation includes following the Construction Environmental Management Plan (CEMP), EA Pollution Prevention Guidance (PPG), and carrying out piling risk assessment prior to the commencement of the works resulting in an **insignificant** effect.	As stated under Objective 1 - Construction.	Any change during construction is temporary and will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Construction.
	Operation	The Foul and Surface Water Drainage Strategy will be implemented during the operation scheme component resulting in s reduction in water infiltrating to the underlying groundwater. This will have a **minor beneficial** impact on the groundwater quality due to the water no longer infiltrating through the made ground and mobilising contaminants. The effect on groundwater will be **insignificant.**	As stated under Objective 1 - Operation.	Due to Foul and Surface Water Drainage Strategy resulting in an impact of **neutral significance**, as detailed in Objective 2 - Operation, the operation of the scheme will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Operation.
	Decommissioning	The effects on the water environment as a result of the decommissioning of the scheme are likely to be similar to the impacts for the scheme construction (see Objective 1 - Construction).	As stated under Objective 1 - Decommissioning. (see Objective 2 - Construction)	As stated under Objective 2 - Decommissioning. (see Objective 3 - Construction)	As stated under Objective 2 - Decommissioning. (see Objective 3 - Construction)
Groundwater - Secondary A Aquifer -Salop Formation (medium importance receptor)	Construction - piling, ground disturbance, and fuel spillage	Construction methods may mobilise existing contaminants and create new pathways allowing existing and construction related contaminants to migrate into the groundwater body. The magnitude of impact on groundwater quality is considered to be minor adverse and would result in a **insignificant** effect considering the aquifer is of medium importance. Proposed mitigation includes following the CEMP, EA Pollution Prevention Guidance (PPG), and carrying out piling risk assessment prior to the commencement of the works.	As stated under Objective 1 - Construction.	Any change during construction is temporary and insignificant and will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Construction.
	Operation	The Foul and Surface Water Drainage Strategy will be implemented during the operation scheme component resulting in s reduction in water infiltrating to the underlying groundwater. This will have a **minor beneficial** impact on the groundwater quality due to the water no longer infiltrating through the made ground and mobilising contaminants. The effect on groundwater will be **insignificant.**	As stated under Objective 1 - Operation.	Due to Foul and Surface Water Drainage Strategy resulting in an impact of **neutral significance**, as detailed in Objective 2 - Operation, the operation scheme will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Operation.
	Decommissioning	The effects on the water environment as a result of the decommissioning of the scheme are likely to be similar to the impacts for the scheme construction (see Objective 1 - Construction).	As stated under Objective 2 - Decommissioning. (see Objective 2 - Construction)	As stated under Objective 2 - Decommissioning. (see Objective 3 - Construction)	As stated under Objective 2 - Decommissioning. (see Objective 3 - Construction)

Water Body	Scheme Component	Objective 1 **The proposed scheme will not cause deterioration in the status of the ecological / chemical elements of the water body.** **Where required detail mitigation proposed.**	Objective 2 **The proposed scheme will not introduce impediments to the attainment of Good WFD status for the water body.** **Where required detail mitigation proposed.**	Objective 3 **The proposed scheme will not compromise the ability of the water body to meet its WFD status objectives.** **Where required detail mitigation proposed.**	Objective 4 **The proposed scheme will not cause a permanent exclusion or compromise achieving the WFD objectives in other bodies of water in the same River Basin District.** **Where required detail mitigation proposed.**
Groundwater - Unproductive Strata - Glacial Till (low importance)	Construction - piling, ground disturbance, and fuel spillage	Construction methods may mobilise existing contaminants and create new pathways allowing existing, and construction related, contaminants to migrate into the groundwater body. The magnitude of impact on groundwater quality is considered to be minor adverse and would result in a **insignificant** effect considering the aquifer is of medium importance. Proposed mitigation includes following the CEMP, EA Pollution Prevention Guidance (PPG), and carrying out piling risk assessment prior to the commencement of the works.	As stated under Objective 1 - Construction.	Any change during construction is temporary and insignificant and will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Construction.
	Operation	The Foul and Surface Water Drainage Strategy will be implemented during the operation scheme component resulting in s reduction in water infiltrating to the underlying groundwater. This will have a **minor beneficial** impact on the groundwater quality due to the water no longer infiltrating through the made ground and mobilising contaminants. The effect on groundwater will be **insignificant.**	As stated under Objective 1 - Operation.	Due to Foul and Surface Water Drainage Strategy resulting in an impact of **neutral significance**, as detailed in Objective 2 - Operation, the operation scheme will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Operation.
	Decommissioning	The effects on the water environment as a result of the decommissioning of the scheme are likely to be similar to the impacts for the scheme construction (see Objective 2 - Construction).	As stated under Objective 1 - Decommissioning. (see Objective 2 - Construction)	As stated under Objective 2 - Decommissioning. (see Objective 3 - Construction)	As stated under Objective 2 - Decommissioning. (see Objective 3 - Construction)
Surface Water - The River Dee (Medium importance secondary receptor)	Construction - piling, ground disturbance, and fuel spillage	The construction scheme component has the potential for construction related contaminants to become entrained in surface water runoff leading to surface watercourses. It also has potential for existing and construction related contaminants to enter groundwater bodies which may provide baseflow to the River Dee, (see Objective 2 - Construction for the groundwater bodies). Due to the attenuation properties of the flowpath the effect on surface water quality and ecology is considered to be **insignificant.**	As stated under Objective 1 - Construction.	Any change during construction is temporary and of low significance and, as such, will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Construction.
	Operation	The foul water drainage strategy will be implemented during operation of the scheme and therefore will not impact on the quality of the surface water environment at the site and surrounding area and as such have an insignificant effect. Modelling of operational emissions indicates that the effects on the ecology of the River Dee is insignificant	As stated under Objective 1 - Operation.	Due to Foul and Surface Water Drainage Strategy resulting in an impact of **neutral significance**, as detailed in Objective 2 - Operation, the operation scheme will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Operation.
	Decommissioning	The effects on the water environment as a result of the decommissioning of the scheme are likely to be similar to the impacts for the scheme construction (see Objective 2 - Construction).	As stated under Objective 1 - Decommissioning. (see Objective 2 - Construction)	As stated under Objective 2 - Decommissioning. (see Objective 3 - Construction)	As stated under Objective 2 - Decommissioning. (see Objective 3 - Construction)

Water Body	Scheme Component	Objective 1 **The proposed scheme will not cause deterioration in the status of the ecological / chemical elements of the water body.** **Where required detail mitigation proposed.**	Objective 2 **The proposed scheme will not introduce impediments to the attainment of Good WFD status for the water body.** **Where required detail mitigation proposed.**	Objective 3 **The proposed scheme will not compromise the ability of the water body to meet its WFD status objectives.** **Where required detail mitigation proposed.**	Objective 4 **The proposed scheme will not cause a permanent exclusion or compromise achieving the WFD objectives in other bodies of water in the same River Basin District.** **Where required detail mitigation proposed.**
Surface Water - The River Clywedog and its tributaries (medium importance secondary receptors)	Construction - piling, ground disturbance, and fuel spillage	The construction scheme component has the potential for construction related contaminants to become entrained in surface water runoff leading to surface watercourses. It also has potential for existing, and construction related, contaminants to enter groundwater bodies which may provide baseflow to the Redwither Brook and River Clywedog, (see Objective 2 - Construction for the groundwater bodies). Due to the medium importance of the secondary receptors and attenuation properties of the flowpath the effect on surface water quality is considered **insignificant.** There will be no ecological impact on the surface watercourses as a result of the works.	As stated under Objective 1 - Construction.	Any change during construction is temporary and insignificant and, as such, will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Construction.
	Operation	The foul water drainage strategy will be implemented during operation of the scheme and therefore will not impact on the quality of the surface water environment at the site and surrounding area and as such have an **insignificant effect.** There will be no ecological impact on the surface watercourses as a result of the works.	As stated under Objective 1 - Operation.	Due to Foul and Surface Water Drainage Strategy resulting in an impact of **neutral significance**, as detailed in Objective 2 - Operation, the operation scheme will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Operation.
	Decommissioning	The effects on the water environment as a result of the decommissioning of the scheme are likely to be similar to the impacts for the scheme construction (see Objective 1 - Construction). There will be no ecological impact on the surface watercourses as a result of the works.	As stated under Objective 1 - Decommissioning. (see Objective 2 - Construction)	As stated under Objective 2 - Decommissioning. (see Objective 3 - Construction)	As stated under Objective 2 - Decommissioning. (see Objective 3 - Construction)

Gas Connection Route

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Groundwater - Principal Aquifer - Kinnerton Sandstone Formation (very high importance receptor)	Construction - directional drilling, ground disturbance, and fuel spillage	Construction methods may mobilise existing contaminants and create new pathways allowing existing, and construction related, contaminants to migrate into the groundwater body. The magnitude of impact on groundwater quality is considered to be minor adverse and would result in a significance effect of s**ignificant** considering the aquifer is of very high importance. Proposed mitigation includes following the Construction Environmental Management Plan (CEMP), EA Pollution Prevention Guidance (PPG), and carrying out piling risk assessment prior to the commencement of the works.	As stated under Objective 1 - Construction	Any change during construction is temporary and will not compromise the ability of the water body to meet its WFD status objectives	As stated under Objective 3 - Construction
	Operation	The gas corridor is underground and maintenance of will be in accordance with the legal requirements of the Corridor Safety Regulations and the guidance published by the HSE and IGEM. There are no anticipated risks to the water environment during operation.	See Objective 1 - Operation	See Objective 2 - Operation. As there are no anticipated risks to the water environment throughout the operation scheme component the ability of the water body to meet its WFD status objectives will not be compromised.	See Objective 3 - Operation
Groundwater - Secondary A Aquifer -Salop Formation (medium importance receptor)	Construction - directional drilling, ground disturbance, and fuel spillage	Construction methods may mobilise existing contaminants and create new pathways allowing existing, and construction related, contaminants to migrate into the groundwater body. The magnitude of impact on groundwater quality is considered to be minor adverse and would result in a significance effect of **insignificant** considering the aquifer is of medium importance. Proposed mitigation includes following the CEMP, EA Pollution Prevention Guidance (PPG), and carrying out piling risk assessment prior to the commencement of the works.	As stated under Objective 1 - Construction	Any change during construction is temporary and will not compromise the ability of the water body to meet its WFD status objectives	As stated under Objective 3 - Construction
	Operation	The gas corridor is underground and maintenance of will be in accordance with the legal requirements of the Corridor Safety Regulations and the guidance published by the HSE and IGEM. There are no anticipated risks to the water environment throughout the operation scheme component.	See Objective 1 - Operation	See Objective 2 - Operation. As there are no anticipated risks to the water environment throughout the operation scheme component the ability of the water body to meet its WFD status objectives will not be compromised.	See Objective 3 - Operation

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Groundwater - Secondary A Aquifer - River Terrace Deposits and Alluvium (medium importance receptor)	Construction - directional drilling, ground disturbance, and fuel spillage	Construction methods may mobilise existing contaminants and create new pathways allowing existing, and construction related, contaminants to migrate into the groundwater body. The magnitude of impact on groundwater quality is considered to be minor adverse and would result in a significance effect of **insignificant** considering the aquifer is of medium importance. Proposed mitigation includes following the CEMP, EA Pollution Prevention Guidance (PPG), and carrying out piling risk assessment prior to the commencement of the works.	As stated under Objective 1 - Construction	Any change during construction is temporary and will not compromise the ability of the water body to meet its WFD status objectives	As stated under Objective 3 - Construction
	Operation	The gas corridor is underground and maintenance of will be in accordance with the legal requirements of the Corridor Safety Regulations and the guidance published by the HSE and IGEM. There are no anticipated risks to the water environment throughout the operation scheme component.	See Objective 1 - Operation	See Objective 2 - Operation. As there are no anticipated risks to the water environment throughout the operation scheme component the ability of the water body to meet its WFD status objectives will not be compromised.	See Objective 3 - Operation
Groundwater - Unproductive Strata - Glacial Till (low importance)	Construction - piling, ground disturbance, and fuel spillage	Construction methods may mobilise existing contaminants and create new pathways allowing existing, and construction related, contaminants to migrate into the groundwater body. The magnitude of impact on groundwater quality is considered to be minor adverse and would result in a significance effect of **insignificant** considering the aquifer is of low importance. Proposed mitigation includes following the CEMP, EA Pollution Prevention Guidance (PPG), and carrying out piling risk assessment prior to the commencement of the works.	As stated under Objective 1 - Construction	Any change during construction is temporary and will not compromise the ability of the water body to meet its WFD status objectives	As stated under Objective 3 - Construction
	Operation	The gas corridor is underground and maintenance of will be in accordance with the legal requirements of the Corridor Safety Regulations and the guidance published by the HSE and IGEM. There are no anticipated risks to the water environment throughout the operation scheme component.	See Objective 1 - Operation	See Objective 2 - Operation. As there are no anticipated risks to the water environment throughout the operation scheme component the ability of the water body to meet its WFD status objectives will not be compromised.	See Objective 3 - Operation
Surface water - River Dee (very high importance receptor)	Construction - directional drilling, ground disturbance, and fuel spillage	The construction scheme component has the potential for construction related contaminants to become entrained in surface water runoff leading to surface watercourses. It also has potential for existing, and construction related, contaminants to enter groundwater bodies which may provide baseflow to the River Clywedog, and River Dee. Due to the medium importance of the secondary receptors and attenuation properties of the flowpath the effect on surface water quality is considered **insignificant.** There will be no ecological impact on the surface watercourses as a result of the works.	As stated under Objective 1 - Construction.	Any change during construction is temporary and insignificant and, as such, will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Construction.

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	Operation	The gas corridor is underground and maintenance of will be in accordance with the legal requirements of the Corridor Safety Regulations and the guidance published by the HSE and IGEM. There are no anticipated risks to the water environment throughout the operation scheme component. There will be no ecological impact on the surface watercourses as a result of the works.	As stated under Objective 1 - Operation.	The gas corridor is underground and maintenance of will be in accordance with the legal requirements of the Corridor Safety Regulations and the guidance published by the HSE and IGEM. The operation scheme will not compromise the ability of the water body to meet its WFD status objectives.	See Objective 3 - Operation
Surface water courses - River Clywedog, tributary of the River Clywedog and drains (medium importance receptor)	Construction - directional drilling, ground disturbance, and fuel spillage	The construction scheme component has the potential for construction related contaminants to become entrained in surface water runoff leading to surface watercourses. It also has potential for existing, and construction related, contaminants to enter groundwater bodies which may provide baseflow to the River Clywedog, and River Dee. Due to the medium importance of the secondary receptors and attenuation properties of the flowpath the effect on surface water quality is considered **insignificant.** There will be no ecological impact on the surface watercourses as a result of the works.	As stated under Objective 1 - Construction.	Any change during construction is temporary and insignificant and, as such, will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Construction.
	Operation	The gas corridor is underground and maintenance of will be in accordance with the legal requirements of the Corridor Safety Regulations and the guidance published by the HSE and IGEM. There are no anticipated risks to the water environment throughout the operation scheme component. - There will be no ecological impact on the surface watercourses as a result of the works.	As stated under Objective 1 - Operation.	The gas corridor is underground and maintenance of will be in accordance with the legal requirements of the Corridor Safety Regulations and the guidance published by the HSE and IGEM. The operation scheme will not compromise the ability of the water body to meet its WFD status objectives.	As stated under Objective 3 - Operation.