

# Risk Assessments

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**Risk assessment for TEC vegetation**

**Objective:** To ensure that impacts to TEC vegetation are avoided and minimised as far as practicable during the construction and operation of the Proposal

**Key environmental values:** TEC vegetation

For more information on the proposed monitoring of potential impacts to TEC, refer to the Vegetation Monitoring Program (Appendix J of the Southern Section Additional Information for Preliminary Documentation)

ENVIRONMENTAL OBJECTIVE	PERFORMANCE TARGET / OUTCOME	POTENTIAL IMPACT	NATURE OF IMPACT	PRE-CONTROL RISK			MANAGEMENT	POST CONTROL RISK			CONFIDENCE LEVEL
				LIKELIHOOD	CONSEQUENCE / SCALE	RISK OUTCOME		LIKELIHOOD	CONSEQUENCE / SCALE	RISK OUTCOME	
<b>Minimise the area of TEC vegetation cleared during construction</b>	Reduce clearing of TEC vegetation to the extent practicable in final design Avoid clearing outside the approved footprint	Clearing or disturbance of TEC vegetation outside of the approved clearing area	Known, predictable, irreversible	Possible	Moderate	Medium	Standard construction management to control construction clearing	Unlikely	Moderate	Low	High
<b>No significant indirect impacts to monitored TEC vegetation adjacent to the Proposal attributable to Proposal implementation</b>	Avoid indirect impacts to monitored TEC vegetation adjacent to the Proposal Area	Reduction in quality / condition of monitored TEC vegetation	Known, predictable Irreversible for <i>Phytophthora</i> dieback Potentially irreversible for surface water Reversible for WONS and Declared Plants	Possible	Moderate	Medium	Implement WONS, Declared Plant, surface water, and <i>Phytophthora</i> dieback management measures within Proposal Area vegetation / revegetation and monitored TEC vegetation Standard construction management to control construction clearing	Unlikely	Minor	Low	High
		Bushfire occurrence as a result of Proposal construction resulting in loss of monitored TEC vegetation	Known, unpredictable, irreversible	Possible	Moderate	Medium	Standard construction management to control potential ignition sources during construction	Possible	Moderate	Medium	High
		Groundwater drawdown impacts on or changes in hydrology of monitored TEC vegetation	Known, predictable, potentially irreversible	Unlikely	Moderate	Medium	Standard construction management to control groundwater water abstraction consistent with WA Government water supply approvals	Unlikely	Moderate	Low	High

**Risk assessment for Black Cockatoos**

**Objective: To ensure that impacts to Black Cockatoos are avoided and minimised as far as practicable during the construction and operation of the Proposal**

**Key environmental values: Black Cockatoo individuals and foraging / breeding (nesting) habitat**

**For more information on the proposed management of potential impacts to Black Cockatoos, refer to the Black Cockatoo Action Management Plan (Appendix L of the Southern Section Additional Information for Preliminary Documentation)**

ENVIRONMENTAL OBJECTIVE	PERFORMANCE TARGET / OUTCOME	POTENTIAL IMPACT	NATURE OF IMPACT	PRE-CONTROL RISK			MANAGEMENT	POST CONTROL RISK			CONFIDENCE LEVEL
				LIKELIHOOD	CONSEQUENCE / SCALE	RISK OUTCOME		LIKELIHOOD	CONSEQUENCE / SCALE	RISK OUTCOME	
<b>Minimise impacts to Black Cockatoos</b>	Avoid direct impacts to Black Cockatoos  Preclude potential breeding within Proposal Area prior to construction	Injury or death of Black Cockatoos during Proposal implementation	Known, predictable, irreversible	Possible	Moderate	Medium	Nil risk of impact to mature individuals  Management required during construction for risk of impact to nesting adults / young  Preconstruction survey of suitable hollows and ongoing monitoring  Preclude access to hollows prior to breeding season	Unlikely	Minor	Low	High
<b>Minimise the area of Black Cockatoo foraging habitat cleared during construction</b>	Reduce clearing of Black Cockatoo habitat to the extent practicable in final design  Avoid clearing outside the approved footprint	Clearing or disturbance of Black Cockatoo habitat outside of the approved clearing area	Known, predictable, irreversible	Possible	Moderate	Medium	Standard construction management to control construction clearing	Unlikely	Moderate	Low	High
<b>No significant indirect impacts to Black Cockatoo habitat adjacent to the Proposal attributable to Proposal implementation</b>	Avoid indirect impacts to Black Cockatoo habitat adjacent to the Proposal Area	Reduction in function and value of adjacent habitat	Known, predictable, reversible (irreversible for <i>Phytophthora</i> dieback)	Possible	Moderate	Medium	Implement WoNS, Declared Plant, surface water, and <i>Phytophthora</i> dieback management measures within Proposal Area vegetation / revegetation  Standard construction management to control construction clearing	Unlikely	Minor	Low	High
		Bushfire occurrence as a result of Proposal construction resulting in loss of adjacent Black Cockatoo habitat	Known, unpredictable, irreversible	Possible	Moderate	Medium	Standard construction management to control potential ignition sources during construction	Possible	Moderate	Medium	High
		Groundwater drawdown impacts on or changes in hydrology of adjacent Black Cockatoo habitat	Known, predictable, reversible	Unlikely	Moderate	Low	Standard construction management to control groundwater water abstraction consistent with WA Government water supply approvals	Unlikely	Moderate	Low	High
<b>Re-establish Black Cockatoo habitat in identified rehabilitation areas as per design specifications</b>	Rehabilitation provides suitable foraging habitat within 10 years of completion	Failure to establish quality foraging habitat	Known, predictable, reversible	Unlikely	Minor	Low	Management to establish and maintain rehabilitation	Unlikely	Minor	Low	High

**Risk assessment for WRP**

**Objective: To ensure that impacts to WRP are avoided and minimised as far as practicable during construction and operation of the Proposal**

**Key environmental values: WRP individuals and habitat**

**For more information on the proposed management of potential impacts to WRP, refer to the Conservation Significant Fauna Action Management Plan (Appendix M of the Southern Section Additional Information for Preliminary Documentation)**

ENVIRONMENTAL OBJECTIVE	PERFORMANCE TARGET / OUTCOME	POTENTIAL IMPACT	NATURE OF IMPACT	PRE-CONTROL RISK			MANAGEMENT <i>(see the Conservation Significant Fauna Action Management Plan (BORR IPT 2020))</i>	POST CONTROL RISK			CONFIDENCE LEVEL
				LIKELIHOOD	CONSEQUENCE / SCALE	RISK OUTCOME		LIKELIHOOD	CONSEQUENCE / SCALE	RISK OUTCOME	
<b>Minimise impacts to WRP</b>	Avoid direct impacts to WRP individuals  Preclude use of refuge sites within the Proposal Area prior to construction	Injury or death of WRP individuals during Proposal implementation	Known, predictable, irreversible	Possible	Moderate	Medium	Management during construction for risk of impact to WRP individuals  Pre-construction survey of suitable refuge sites and ongoing monitoring  Preclude access to refuge sites prior to clearing  Installation of Possum fence as per specification	Unlikely	Moderate	Low	High
<b>Minimise area of WRP habitat cleared during construction</b>	Reduce clearing of WRP habitat to the extent practicable in final design  Avoid clearing outside the approved footprint	Clearing or disturbance of WRP habitat outside of the approved clearing area	Known, predictable, irreversible	Possible	Moderate	Medium	Standard construction management to control construction clearing	Unlikely	Minor	Low	High
<b>No significant indirect impacts to WRP habitat adjacent to the Proposal attributable to Proposal implementation</b>	Avoid indirect impacts to WRP in adjacent habitat	Reduction in WRP habitat quality / condition (function and value) adjacent to the Proposal	Known, predictable, reversible (irreversible for <i>Phytophthora</i> dieback)	Possible	Moderate	Medium	Implement WONS, Declared Plant, surface water, and <i>Phytophthora</i> dieback management measures within Proposal Area vegetation / revegetation  Standard construction management to control construction clearing	Unlikely	Minor	Low	High
		Bushfire occurrence as a result of Proposal construction resulting in loss of adjacent WRP habitat	Known, unpredictable, irreversible	Possible	Moderate	Medium	Standard construction management to control potential ignition sources during construction	Possible	Moderate	Medium	High
		Groundwater drawdown impacts on or changes in hydrology of adjacent WRP habitat	Known, predictable, reversible	Unlikely	Moderate	Low	Standard construction management to control groundwater water abstraction consistent with WA Government water supply approvals	Unlikely	Moderate	Low	High
	Maintain connectivity between known WRP habitat areas  Avoid indirect impacts to WRP in adjacent habitat	Engineered movement structures not installed and / or ineffective	Known, predictable, reversible	Possible	Moderate	Medium	Installation of engineered movement structures as per specification, on-going monitoring and responsive management  Targeted rehabilitation and maintain access to water at engineered movement structure locations adjacent to the Proposal Area to make utilisation of structures attractive and effective for WRP	Possible	Moderate	Medium	High

**Risk assessment for BSM**

**Objective:** To ensure that impacts to BSM are avoided and minimised as far as practicable during construction and operation of the Proposal

**Key environmental values:** BSM individuals and habitat

**For more information on the proposed management of potential impacts to BSM, refer to the Conservation Significant Fauna Action Management Plan (Appendix M of the Southern Section Additional Information for Preliminary Documentation)**

ENVIRONMENTAL OBJECTIVE	PERFORMANCE TARGET / OUTCOME	POTENTIAL IMPACT	NATURE OF IMPACT	PRE-CONTROL RISK			MANAGEMENT <i>(see the Conservation Significant Fauna Action Management Plan (BORR IPT 2020))</i>	POST CONTROL RISK			CONFIDENCE LEVEL
				LIKELIHOOD	CONSEQUENCE / SCALE	RISK OUTCOME		LIKELIHOOD	CONSEQUENCE / SCALE	RISK OUTCOME	
<b>Minimise area of BSM habitat cleared during construction</b>	Reduce clearing of BSM habitat to the extent practicable in final design  Avoid clearing outside the approved footprint	Clearing or disturbance of BSM habitat outside of the approved clearing area	Known, predictable, irreversible	Possible	Moderate	Medium	Standard construction management to control construction clearing (not specific to this AMP)	Unlikely	Minor	Low	High
<b>No significant indirect impacts to BSM habitat adjacent to the Proposal attributable to Proposal implementation</b>	Avoid indirect impacts to BSM in adjacent habitat  Maintain water quality levels within specified guidelines	Impact to water quality in BSM habitat adjacent to the Proposal	Known, predictable, reversible	Possible	Moderate	Medium	Management to control sedimentation and erosion during construction  Management of hydrocarbon storage during construction	Unlikely	Minor	Low	High
	Hydrology baseline functions and values are maintained	Impact to water levels in BSM habitat adjacent to the Proposal	Known, predictable, reversible	Possible	Moderate	Medium	Standard construction management to control groundwater water abstraction consistent with WA Government water supply approvals (not specific to AMP)	Unlikely	Minor	Low	High
	Maintain connectivity between potential BSM habitat areas  Avoid indirect impacts to BSM in adjacent habitat	Disruption of habitat connectivity	Known, predictable, reversible	Possible	Moderate	Medium	Management to maintain habitat connectivity for BSM, including installation of culverts	Unlikely	Minor	Low	High
	Avoid indirect impacts to BSM in adjacent habitat	Bushfire occurrence as a result of Proposal construction resulting in loss of adjacent BSM habitat	Known, unpredictable, irreversible	Possible	Moderate	Medium	Standard construction management to control potential ignition sources during construction (not specific to AMP)	Possible	Moderate	Medium	High