



ARROW BOWEN PIPELINE PROJECT

APPENDIX A8 – COMMITMENTS REGISTER

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Commitments made in the EIS

Commitment number	Commitment
C001	Trenching of watercourse crossings should be completed promptly and with due regard to the weather forecast.
C002	Compensation is offered to the landowner for any temporary disruption to agricultural production during construction of the project.
C003	Construction of the project will be progressed sequentially, with clean-up, restoration and rehabilitation initiated after backfilling is complete, while trenching and the other activities are advanced.
C004	Monitoring activities include post-construction audits to be conducted annually for two years to evaluate re-vegetation, erosion control, weed control, watercourse integrity and success of bed and bank re-profiling.
C005	Any diesel or oil spills that may occur during construction activities will be contained and managed in accordance with the Emergency Response Plan (ERP).
C006	Trench breaks will be installed prior to backfilling of the trench to control water movement along the backfilled trench. The location of trench breaks will be identified in the Erosion and Sediment Control Plan.
C007	The landscape will be rehabilitated to pre-existing contours with natural drainage lines restored and protected. Land owners will be invited to comment on rehabilitation requirements for their property.
C008	Erosion and sediment control measures will be installed, maintained and monitored in accordance with the Erosion & Sediment Control Plan.
C009	The Project will continue monitoring of Right of Way (ROW) condition for two years post commissioning. An inspection schedule will be undertaken throughout the Project's operational period.
C010	Chemical storage will comply with Australian Standards and Material Safety Data Sheets (MSDS) requirements and Dangerous Goods Storage and Handling Guidelines 2010.
C011	A Safety Management Plan - Construction will be prepared which will include measures to manage exposure of construction workers to hazardous compounds.
C012	A Contaminated Land Management Procedure will be prepared prior to the commencement of construction.
C013	<p>A Traffic Management Plan (TMP) will be developed to address key safety and logistical issues that may arise due to:</p> <ul style="list-style-type: none"> - Project vehicles crossing State and Local controlled roads; - Safety risks brought about by increased heavy vehicle traffic; - Lane closures; and - The use of single-lane local access roads. <p>The TMP will be circulated to State and Local Government stakeholders, such as Department of Transport and Main Roads (DTMR) and Queensland Police Service (QPS), for comment.</p>
C014	A road crossing plan will be developed prior to undertaking road crossings. The plan will be circulated amongst State and Local government stakeholders prior to finalisation.
C015	Railways will be crossed using directional drilling or thrust boring techniques.
C016	The Project will undertake a road condition report prior to the finalisation of the TMP.
C017	A Waste Management Plan (WMP) will be prepared prior to the start of the construction of the pipeline in accordance with the Environmental Protection (Waste Management) Policy 2000 and all applicable legislative requirements.
C018	Waste management will be based on the waste hierarchy - waste avoidance, waste re-use, waste recycling, and waste disposal.
C019	Waste management will be in accordance with all relevant regulatory requirements.
C020	All pipelines packaging waste material (e.g. ropes and straps) will be removed from the ROW and disposed in accordance with local government requirements.
C021	Reusable and recyclable wastes, such as timber skids, pallets, drums, scrap metals and circumferential fibre/nylon to spacers used in pipe transport shall be collected and stockpiled for recycling.
C022	All binding material and dunnage from transport vehicles and unloading areas is to be collected and transported off the ROW to designated disposal areas.
C023	General refuse shall be collected and transported to a Local Government approved disposal site.
C024	Lidded refuse containers will be located at each worksite.

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C025	Construction workers will be made aware of the WMP through the inductions process and tool box talks.
C026	Any vegetation wastes created through clearing activities will be either chipped for re-use or stockpiled and used as windrows along the ROW or left for use by the landholder.
C027	Declared plants detected on the ROW will be managed in accordance with the Weed Management Plan.
C028	Licensed waste disposal facilities will be identified and used for disposal of putrescibles and non-putrescibles solid wastes.
C029	All suitable material extracted during trenching will be re-used in the trench as padding and backfill for the pipeline.
C030	Drilling mud will be screened and recycled if practicable or buried in the proposed pipeline trench or pit within the ROW.
C031	Waste oil and solvents shall be collected by approved contractors for recycling, re-use or disposal at approved locations.
C032	Chemical wastes will be appropriately labelled and contained in sealed containers for safe transport to an approved chemical waste receivable/disposal depot or collection by a liquid waste treatment service.
C033	Develop and implement a Hydrostatic Test Water Management Plan, incorporating environmental protection measures.
C034	Horizontal Directional Drilling (HDD) method will be investigated for the crossing of major waterways (subject to geotechnical investigation) such as the Fitzroy River, Isaac River and Raglan Creek.
C035	Flows to downstream water users and the environment will need to be maintained throughout construction in flowing waterways.
C036	Flow diversion techniques will be used where flowing water is present during open cut crossings to minimise increase in turbidity.
C037	Stormwater diversion banks/drains (e.g. whoa-boys) are to be placed at a distance of 10 m back from each side of the top of the watercourse embankment.
C038	Construction of watercourse crossings will be scheduled during the dry season wherever practicable when the intermittent rivers and streams traversed by the pipeline are generally not in flow.
C039	Water required during construction of the pipeline will be sourced from existing allocations.
C040	Water supply agreements and resource authorities will be obtained for water supplies.
C041	A Water Options Study will be undertaken to provide greater detail on available sources and facilitate further development of the water resourcing strategy for the project construction phase.
C042	Watercourse crossings will be undertaken in accordance with the Aquatic Values Management Plan
C043	Large riparian trees will be retained. Root stock will be retained for stabilisation of the banks.
C044	Ongoing inspection of watercourses during operation will be undertaken and remedial action will be initiated
C045	The ROW will be 30m with 10m additional working space. The additional working space will not be cleared in environmentally sensitive areas.
C046	Following construction banks will be rehabilitated in accordance with the Rehabilitation Management Plan.
C047	Inspection and monitoring of watercourses will be ongoing during operation and remedial action will be initiated.
C048	Pre-stripping and stockpiling of topsoil and bed material will be in accordance with the Soils Management Plan and stored above the bank where it will not be buried or damaged, with topsoil and bed material stockpiled separately.
C049	The disturbance corridor for the bed, bank and approaches to watercourses will be the narrowest for safe construction.
C050	Training / induction of construction and maintenance crews will include environmental values associated with stream channels (e.g. habitat, water quality and areas of downstream significance).
C051	The Weed Management Plan to be developed and implemented shall apply to the whole of the project and shall include incursion into riparian areas at watercourse crossings.
C052	The water quality of watercourses, if flowing, shall be monitored during construction across the watercourse at wet crossings both upstream and downstream of the construction area.
C053	At wet crossings, erosion control structures (such as sediment fences, floatation curtains, sand bags and hay bales) will be placed in the channel and/or stream banks to capture suspended sediment.
C054	Clearing of the slopes leading to the watercourses will be delayed until the construction of the crossing is imminent. Where this is not possible, other soil protection measures will be applied
C055	Meteorological forecasts (e.g. Bureau of Meteorology (BOM) website) will be monitored for storm and heavy rain events to assist in scheduling key activities.
C056	Watercourse crossings will be completed promptly and with due regard to the weather (i.e.

Commitment number	Commitment
	construction will be scheduled for the dry season and postponed during significant rainfall and/or flood events).
C057	In the event of flooding, remedial action will be taken in accordance with the ERP where necessary.
C058	Hydrostatic test water will not be disposed of directly to watercourses.
C059	Test water shall be discharged to land or a holding pond / farm dam (for evaporation or subsequent beneficial use) and will be in compliance with regulatory and landholder requirements with all necessary permits obtained.
C060	No refuelling of plant and equipment will be undertaken within 50 m of watercourses.
C061	Waste and dangerous goods management strategies outlined in the WMP and EM Plan will be adopted.
C062	Watering trucks will be employed to control dust in dry and/or windy conditions.
C063	Complaints database established and all complaints investigated properly.
C064	Limiting vehicle speeds on the ROW to reduce impacts (such as wheel-generated dust or noise).
C065	Vehicles, plant and equipment will be maintained in accordance with manufacturers' requirements.
C066	Beneficial use of cleared material will be maximised.
C067	The Project will liaise with landholders to advise on the construction schedule and construction works through their respective landholdings and the likely duration of potentially noisy activities.
C068	A complaints register will be maintained and complaints will be addressed in a timely manner.
C069	With the exception of HDD and hydrostatic testing, construction activities will be scheduled to occur between the hours of 6.00 am and 6.00 pm.
C070	Any blasting will be carried out in accordance with current practice standards with particular reference to Australian Standard AS 2187:1998 'Explosives - Storage, Transport and Use'.
C071	Should blasting be required, a condition survey will be conducted on any landholders' properties within 100 m of where blasting is to occur.
C072	Pre-construction surveys will be conducted in the ROW and immediate adjacent areas to mark Endangered, Vulnerable and Near Threatened (EVNT) and regionally significant flora species.
C073	If EVNT plants cannot be avoided, an appropriate management plan to offset biodiversity losses will be developed and implemented in liaison with relevant State and Commonwealth regulatory agencies.
C074	A pre-construction survey will be undertaken by an appropriately qualified ecologist to clearly identify and mark hollow-bearing trees or other ecologically sensitive areas.
C075	All fauna captured during the pre-construction survey and spotter/catcher activities should be re-located.
C076	A suitably qualified and experienced fauna spotter/ handler will be present during vegetation clearing to minimise the potential harm to fauna species and recover any injured fauna.
C077	Ramps (with slopes of no greater than 50%) will be installed in the trench to allow the easy egress of fauna from the trench at a minimum of 1000 m intervals. In areas of high fauna density, additional ramps and branches shall be installed to enable small fauna to exit the trench, while hessian sacks should be placed in the trench for animal shelter.
C078	A qualified and experienced fauna spotted / handler should check the trench for captured fauna at least daily, preferably in the morning to remove animals prior to the heat of the day.
C079	A pre-construction survey should be conducted to identify potential turtle nests and platypus borrows within the known distribution ranges of these species.
C080	In watercourses that are potential Fitzroy River Turtle habitat, disturbance to the sandy substrate areas of these watercourse beds and banks will not occur during the breeding and nesting season (September and October).
C081	Flows will be reinstated at each flowing watercourse crossing site as soon as trenching is completed.
C082	Develop and implement a Weed Management Plan with reference to Arrow Energy's Pest Management Program, 2012 which adopts principles developed in alliance with the Australian Weeds Strategy.
C083	Compliance with the provisions of the ILUAs developed in conjunction with the respective NT parties.
C084	Compliance with the CHMP developed in conjunction with the respective NT parties.
C085	Implement the Historic Heritage Management Plan (HHMP) as part of the project Environmental Management Plan (EM Plan).
C086	Communication and consultation with landholders to reduce uncertainty for property owners about the use of the ROW and easement (including conversion of the ROW to an easement option) will be ongoing during construction and operation respectively.
C087	Worker behaviour protocols will be implemented throughout construction.
C088	The capacity of health services, in particular General Practitioner (GP) services, will be identified to minimise impact to local health services.

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C089	Any potential health and safety impacts will be managed through appropriate health and safety policies as part of the Safety Management Plan - Construction.
C090	Health and Safety Officers will be present on the construction site.
C091	An updated list of health services available along the pipeline route, including contact details, will be compiled.
C092	Local health authorities will be advised of the project timetable and made aware of the possible need for their services during the construction phase. The authorities will be updated as the project progresses down the pipeline route.
C093	Employees will be warned about the possibility of wildlife hazards during induction.
C094	A detailed Pipeline Safety Management Study (SMS) will be undertaken for the project in accordance with Australian Standard AS 2885.1:2012 'Pipelines-Gas and Liquid Petroleum'. The PSMS will ensure that all possible threats at each location are identified, evaluated and appropriately planned for and managed during pipeline construction and operation.
C095	The Safety Management Plan - Construction will be developed in consultation with emergency response agencies.
C096	An ERP will be prepared for all likely emergency situations and incidents that could occur as a result of project construction or operations by natural hazards, systems and equipment failure or by human error.

Additional Commitments presented in the EM Plan

Commitment number	Commitment
EM001	A program to train staff involved in carrying out dust generating activities and in dust management practices
EM002	Arrow will liaise with landholders and the community to advise on construction activities and timing.
EM003	Raising awareness of energy efficiency and greenhouse gas emissions will be introduced through workshops or toolbox talks.
EM004	Fire control measures will be implemented during welding operations.
EM005	Smoke generation will be avoided through the implementation of a strict no burning policy.
EM007	Repair any detected leaks.
EM008	Install and maintain erosion and sediment control measures (including sediment fences, berms and diversion drains) to minimise erosion of disturbed areas and prevent the contamination of waters.
EM009	Stockpile spoil outside watercourses, and /or behind containment structures so as to prevent siltation of any land or surface water or blockage of any existing drainage channels.
EM010	Install additional control measures for construction works on slopes >10%.
EM011	Strip, salvage and stockpile topsoil near the worksite separately to subsoils. Stockpile separately to protect topsoil, root and seed stock and protect from erosion. Ensure: <ul style="list-style-type: none"> - topsoil stockpiles are stabilised; - minimal loss of topsoil from erosion; - seeding of long term topsoil stockpiles to prevent erosion; - constructing a diversion drain around the topsoil stockpile area; - implementing erosion control measures around the topsoil stockpile area.
EM012	No vehicular movements over stockpiled soil. Topsoil will not be used as padding or backfill.
EM013	Prepare and implement a site specific ASS Management Plan for all areas of ASS/PASS disturbance, which include corrective actions for incident management and remediation. This will management strategies for: <ul style="list-style-type: none"> - the use of suitably designed treatment pads - leachate collection systems - bunding.
EM014	Maintain erosion and sediment controls to ensure a stabilised easement. Replace erosion control measures following any pipeline maintenance or dig-ups.
EM015	Protected flora species (including terrestrial and marine species) will only be removed or disturbed if authorised under a relevant permit.
EM016	Clearing of remnant vegetation areas should be minimised for the purposes of siting, laydown areas, vehicle access tracks and other ancillary impact areas.
EM018	Specific targeted management measures for rare, endangered or vulnerable species will be implemented including:

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	<ul style="list-style-type: none"> - Offset management plan to be developed for endangered natural grasslands of the Queensland Central Highlands and the northern Fitzroy Basin (RE 11.8.11) located at KP35.44 to 36.90 and KP37.25 to 37.63. - No clearing of Brigalow (or Brigalow regrowth) will be conducted outside the ROW.
EM020	Where threatened fauna species are identified, targeted species-specific management strategies will be incorporated into project documentation (including the EM Plan and any relevant procedures developed).
EM021	Where feasible and approved by the landholder, felled timber shall be positioned in small piles along the edge of the ROW to provide habitat for fauna species. Feasibility will depend on the amount of felled timber available, operational and access requirements and the sensitivity of the adjacent vegetation;
EM022	Vehicle tracks along the ROW and designated access areas (turnarounds etc) shall be clearly marked and well maintained to minimise the potential for vehicles to stray outside of the ROW, particularly during and after wet weather;
EM023	Night caps will be placed over the open pipe string ends to prevent the ingress of wildlife into welded pipes;
EM024	The length of time that the trench is open shall be minimised through staging of trenching activities to minimise the potential for the pipeline to impact on local populations of fauna;
EM025	All vehicles and plant must be washed prior to being certified weed free by suitably trained personnel, consistent with the <i>Queensland Checklist for Cleandown Procedures, 2000</i> .
EM026	Trained personnel will assess vehicles, plant and equipment following cleaning and issue certification. A register will be maintained of vehicles, plant and equipment cleaned.
EM027	Washdown facilities will be constructed in accordance with <i>Queensland Guidelines for the Construction of Vehicle and Machinery Wash-down Facilities, 2000</i> .
EM028	Stockpiled topsoil and subsoil will be reused in the same locality from which they were extracted to avoid the spread of pests or weeds.
EM029	Implement annual weed treatment program along the ROW where weed infestations are identified. Typically, this is implemented in conjunction with landholder spraying and weed control programs.
EM030	Develop and implement a Noise and Vibration Management Plan (NVMP) for construction activities.
EM031	Vehicles and equipment will be fitted with noise-reduction devices.
EM032	Provide advance notice of any scheduled atypical noise events to nearby residents.
EM033	Provide advance notice of any scheduled maintenance activities creating excess noise along the ROW, including venting, to nearby residents.
EM034	Install gates, cattle grids and/or temporary fencing to control livestock, where agreed.
EM035	Ensure vehicles and personnel remain on the construction ROW and designated access tracks, unless at designated work and turnaround areas within the expanded 40m width.
EM036	Conduct formal inductions/briefings to pipeline construction personnel on Indigenous cultural heritage values, sites or places and the appropriate measures to be undertaken in the event of new finds.
EM037	If a new cultural heritage sites or places are uncovered:- the Indigenous representatives, of the party responsible as outlined in the relevant ILUA shall be contacted and management measures as outlined in the ILUA shall be applied.
EM038	Incorporate historical heritage awareness into site induction procedures, including information on heritage values.
EM039	Develop and implement arrangements with suppliers to return unused construction materials to the supplier.
EM040	Provide bins for different waste streams to separate solid waste. Provide general domestic waste and food waste disposal facilities to assist with waste segregation.
EM041	Wastes will be appropriately contained and / or covered to prevent access by stock or wildlife.
EM042	Undertake the handling, storage, transport and disposal of hazardous wastes in accordance with relevant Australian Standards and legislation.
EM043	Waste oil and solvents shall be collected by approved contractors for recycling, reuse or disposal at approved locations.
EM044	Compaction relief will be undertaken before spreading topsoil, to promote vegetation regrowth, protect against topsoil loss and to minimise rilling.
EM045	Topsoil (containing the natural seed bank) will be removed, stockpiled and then re-spread across rehabilitation areas following disturbance (C099). Stock routes will be rehabilitated following completion of construction activities.
EM046	Implement annual treatment program along the ROW where weed infestations are identified. Typically, this is implemented in conjunction with landholder spraying and weed control programs.
EM047	Re-vegetation/re-seeding efforts will be based on soil types, existing location vegetation characteristics and endemism of selected species.

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EM048	Where rehabilitation includes native vegetation and the area is not naturally regenerating, local indigenous species will be sourced preferably from a local seed bank.
EM049	Where rehabilitation is not practicable, such loss will be offset by a variety of measures, as agreed with the responsible agencies.
EM050	Re-seed grazing areas with appropriate native or pasture seed mixes during rehabilitation to prevent weed species establishing.
EM051	Pipeline operated in accordance with relevant operational procedures to prevent or minimise environmental harm.
EM052	Pipeline decommissioning will be undertaken in accordance with relevant regulatory standards at the time.