

PART B – AEIS

29.	Environmental Management Plan	29-1
29.1.	Legislation	29-1
29.2.	Complaints	29-1
29.3.	Geology and soils	29-1
29.4.	Groundwater	29-1
29.5.	Surface water quality	29-2
29.6.	Terrestrial flora	29-3
29.7.	Animal pest and weed management plans	29-3
29.8.	Aquatic flora and fauna	29-4
29.9.	Air quality	29-4
29.10.	Transport	29-5
29.11.	Social	29-5

29. ENVIRONMENTAL MANAGEMENT PLAN

29.1. Legislation

A submitter stated that the EMP referred to repealed legislation. At the time of approval for public release of the EIS by the Coordinator-General all legislation was current. SunWater acknowledges the changes to relevant legislation and **Section 2.1** of the Draft EMP has been updated to reflect this. The revised Draft EMP is provided as **Appendix B29**.

29.2. Complaints

A submitter stated there was a need for an appropriate complaints management system. Section 29.4.4 of the EIS outlined requirements of the complaints management system for the Project. The construction contractor will nominate a single point of contact to be the co-ordinator of complaint handling and response procedures and they will be based locally.

29.3. Geology and soils

A submitter requested that professional advice be sought with respect to fossils found during pipeline excavation. Section 6.2.2.1 of the EIS stated the procedure for fossil finds during the pipeline excavation which included seeking advice from the Queensland Museum Geoscience unit. **Section 9.4** of the EMP has been updated (**Appendix B29**) to reflect this commitment.

A submitter requested detailed management strategies and options to address potential issues and risks concerning the disturbance of problem soils along the pipeline route. In response, SunWater engaged Land Resource Assessment and Management Pty Ltd (LRAM) to develop soil management protocols. The soil management protocols are designed to assist SunWater and its contractors with:

- identification of distinct soil management groups along the pipeline corridor;
- mapping the distribution of these soil management groups within the corridor;
- determining the environmental risk for each soil management group based on particular construction and operation activities associated with the pipeline; and
- identifying appropriate management strategies to implement so that environmental impact is avoided or minimised.

Chapter 6 of Part B of the AEIS provided a summary of the protocols, with the full protocol provided as **Appendix B-6**. **Section 9.4** of the draft EMP (**Appendix B-29**) has also been updated to include this information.

29.4. Groundwater

Two submitters were concerned that the ponded area of the dam will pressurise existing bores and impact the Hutton aquifer. The Groundwater model indicated the majority of pressure changes caused by the inundation will be within the Precipice aquifer and overlying sediments. The Hutton Aquifer is too far to the west to experience any significant changes in groundwater pressure. However it is possible that bores within the aquifer will be impacted. SunWater will complete a bore survey prior to construction. Further detail is provided in **Section 15.2.2** of Part B of the AEIS.

The Department of Environment and Heritage Protection (DEHP) requested that the EMP include a requirement to undertake annual assessment of the impact of the dam on groundwater via periodic updates to the groundwater model during dam operation. There would be no value in updating the groundwater model as the model is used to predict impacts, rather than monitor them. Even if the model was to be updated, any impacts would already have occurred during construction. SunWater has committed to a groundwater monitoring program, outlined in **Section 9.7** and **Section 10.5** of **Appendix B-29**.

Section 29.9.7 of the EIS provided a draft EMP for groundwater. An updated groundwater monitoring and management program detailing locations of new bores drilled as part of the AEIS, as well as refurbished (existing) bores, is detailed in **Section 9.7** and **Section 10.5** of **Appendix B-29**. Groundwater monitoring will commence at least 12 months prior to construction and continue during operations until sufficient data has been collected to allow its revision. The suite of parameters sampled under this program will include electrical conductivity (EC), pH, metals, and major anions and cations as per the advice of DNRM.

Additionally a bore monitoring and management program (**Section 9.7** of **Appendix B-29**) will be developed during the construction phase of the Project, and will include the bore survey detailed in **Section 15.2.2**.

29.5. Surface water quality

A submitter requested that a warning system for blue green algae be provided for water users and riparian zone land holders. SunWater currently provides a blue green algae warning system via the website for each of their water storages and an on-site hazard indicator board (similar to a fire hazard warning sign) at sites with recreational facilities. SunWater is committed to implementing this same warning system for Nathan Dam.

A submitter requested further information about the proposed water quality monitoring during construction, specifically they wanted total suspended solids (TSS) and total petroleum hydrocarbons (TPH) in the minimum list of parameters which should be measured.

As discussed in section 29.9.8 of the EIS, a Project Water Quality Monitoring Program (PWQMP) will be developed and implemented. Sites will be identified upstream and downstream of priority Project activities with the potential to impact upon water quality. The parameters to be tested will be determined relative to the activity and the potential for contamination and may include TSS and total petroleum hydrocarbons. The decision on which parameters should be sampled will be made during the development of the final PWQMP. However a full suite of applicable parameters, including TSS and TPH, will be monitored at least at one site upstream of all works and one site downstream of all works on the Dawson River.

A submitter requested that the performance criteria for surface water quality be updated to incorporate reference to the Queensland Water Quality Guidelines (2009) and as described in Schedule 1 of the Environmental Protection Policy (Water) 2009. **Section 9.8** of the draft EMP has been updated (**Appendix B-29**) to reflect this commitment.

29.5.1. Recreation area

A submitter requested that appropriate signage indicating if water is not potable be provided at the recreation area of the Dam. It is intended that the recreation areas be managed by Banana Shire Council so the submitters

recommendation will be passed on to Council. Council currently has such a sign at the existing Glebe Weir recreation area.

29.6. Terrestrial flora

A submitter requested that the responsibility for the Terrestrial flora EMP was both the Contractor and Proponent. SunWater acknowledges that the implementation of the offsets component of the Terrestrial flora EMP is the responsibility of the Proponent. **Section 9.9** of the draft EMP has been updated (**Appendix B-29**) to reflect this commitment.

A submitter stated that vegetation that is approved for clearing is cleared in accordance with any condition that is stipulated in the vegetation clearing permit. SunWater notes this.

A submitter stated that there was insufficient detail provided in the EMP in relation to the methods that will be used for rehabilitation and revegetation of the pipeline easement and further detail should be provided. Rehabilitation was addressed in Section 2.4.5.1, 2.4.5.2, 10.2.2.1 and 29.9.9 of the EIS.

The Contractor will prepare a plan for rehabilitation and revegetation and submit for approval no less than one month prior to commencing works. Specific measures to achieve the purpose of the rehabilitation and revegetation plan are provided in **Section 9.9** of the revised EMP (**Appendix B-29**) and they reflect the measures raised by the submitter.

29.7. Animal pest and weed management plans

A submitter requested that details be provided of the Weed Management Plan, Pest Management Plan, Fire Risk Management Plan and any other Management Plans referred to in the EIS. Section 29 of the EIS provided an outline of the scope of each aforementioned plan. As discussed in Section 29.3.1 of the EIS, the draft EMP will be finalised by the Contractor prior to the commencement of construction. Finalisation and submission of the Construction EMP is a standard condition of approval and SunWater will comply with that condition.

Two submitters requested that a pest and weed management plan for the pre and post construction periods be developed and implemented. Outlines of animal pests and weed management plans were provided in the EIS in Section 29.9.11 and 29.9.13 respectively. SunWater enacts *Weed Management Strategies* for all projects. The strategies stipulate weeds and pests of concern for the project area and protocols for minimising spread and/or transfer. A *strategy* is already implemented as part of this Project and will continue to be implemented during preconstruction and operational activities (post-construction).

A submitter requested that pest and weed management plans make reference to the Western Downs Regional Council (WDRC) Pest Management Plan. Another submitter suggested a coordinated approach to pest management via consultation with local government. SunWater is committed to consulting with Banana Shire Council and WDRC and being cognisant of their existing plans during the development of the pest and weed management plans. **Section 9.11** and **Section 9.12** of the draft EMP has been updated (**Appendix B-29**) to reflect this commitment.

Two submitters requested that vehicles used during construction and operations are subject to stringent washdown procedures to prevent the spread of weeds. Sections 10.2.1.4 and 10.2.2.4 of the EIS described the

potential impacts and mitigation measures for terrestrial weeds during both construction and operation. These mitigation measures included washdown procedures in accordance with SunWater's Environmental Management System (EMS). Section 29.9.13 of the EIS reiterated this commitment.

A submitter raised concern about public health issues including mosquito borne diseases associated with the development of the Dam. Another submitter requested that a comprehensive mosquito management plan be developed. Sections 13.2.1.1 and 29.9.11 of the EIS discussed site management during construction and operation in relation to the prevention of creation of habitat favourable for mosquitos. SunWater is committed to developing a biting insect management plan consistent with the Queensland Health *Guidelines to minimise mosquito and biting midge problems in new development areas*. **Section 9.12** of the draft EMP has been updated (**Appendix B-29**) to reflect this commitment.

A submitter noted that while no immediate issues were foreseen, machinery, equipment, soil, grape plants and other phylloxera risk items are restricted from entering the Project area as it is designated a Special Control Zone under s73 of the Plant Protection Regulation 2002. Inspector's Approval (IA) 4.7 revoked the restrictions previously contained within IA 4.6, provided stringent conditions are met. In the unlikely scenario that machinery is deemed a phylloxera risk item (i.e. they may host material, including any plant, plant part, or plant product of the genus *Vitis*) they will be inspected and meet industry approved movement conditions as defined in IA 4.7 and associated documentation prior to entry to site.

29.8. Aquatic flora and fauna

A submitter requested that details be provided on the steps that will be implemented to minimise the risk of exotic aquatic flora from being introduced into the dam and contingency plans in the event of weed infestation. Section 29.9.12 of the EIS outlined the mitigation measures during construction that will be implemented to minimise the risk of exotic aquatic flora being introduced, as well as the response should weeds be identified. Section 12.2.1.2 of the EIS outlined the mitigation measures during operation.

A submitter was concerned about how aquatic weed control will be managed without incurring large weed control costs and environmental hazards. As stated in Section 29.10.1 of the EIS, SunWater has considerable experience in the operation of dams, pipelines and water supply systems and has established Standard Operating Procedures for many aspects of operation, including weed control. These operating procedures will be applied or adapted to the management of the Nathan Dam. The procedures utilise management controls for pest plants recommended by DAF Biosecurity and other relevant sources as a basis for identifying appropriate control methods.

29.9. Air quality

A submitter requested that the community be provided with a phone number to call to halt construction until air quality issues are resolved and to also provide extra water trucks and lower vehicle travel speeds. Section 29.9.14 of the EIS outlined the complaint monitoring process for air quality issues. Section 29.4 of the EIS outlined the complaint management system; specifically that a complaints telephone service will be provided. The phone number for the telephone service will be promoted as part of the consultation program prior to and during construction.

As discussed in Section 29.9.14 of the EIS, where air quality objectives are not being met air quality mitigation measures will be implemented as soon as practicable and may include additional water trucks or lowering vehicle travel speeds. Furthermore, all appropriate personnel will undertake adequate environmental awareness training regarding air quality management and the environmental management commitments relating to dust generation. Finally, the Contractor can request the cessation of works at any time should a breach of performance criteria of the EMP be occurring or be at risk of occurring.

29.10. Transport

A submitter requested that the reinstatement of roads be to the satisfaction of local authorities for local government roads and DTMR for SCRs where damage to roads is a result of Project activities. **Section 9.18** of the draft EMP (**Appendix B-29**) has been updated to reflect this commitment.

A submitter requested that the Project conduct ongoing consultation regarding the implementation of mitigation measures for the traffic impacts on the Warrego Highway, including regular consultation with the Queensland Police Service (QPS) District Officers of Dalby and Roma Police District. **Section 9.18** of the draft EMP has been updated (**Appendix B-29**) to reflect this commitment.

Two submitters requested that key stakeholders including school bus operators and school bus committees are included in communications regarding changed or impacted bus routes. Section 29.9.18 of the EIS identified the commitment to consult with school bus operators. One of these submitters also requested that parents and WDRC also be communicated with. SunWater agrees to communicate this information to all key stakeholder groups through appropriate channels. As outlined in section 29.9.20 a communication program will be implemented within local and regional communities, including communication around:

- construction activities, including timing, duration and likely impacts;
- management and mitigation measures; and
- details of the complaint management system.

A submitter noted that all access points to State Controlled Roads require approval under s62 and s33 of *Transport Infrastructure Act 1994*. SunWater notes this requirement.

29.11. Social

A submitter requested that all SunWater employees have a “blue card” and property owners be notified when SunWater employees are entering their properties and consultation is conducted with landholders to determine when they are conducting farming activities.

A “blue card” is required by staff in occupations which require them to work with children and is not a requirement placed on construction or maintenance workers. However the construction induction program and the training provided to maintenance staff will include components on public safety, and specifically safety of landholders and their children.

SunWater’s standard easement agreements include components covering access and notification arrangements and landowners may negotiate alternative arrangements if it better suits their circumstances.



A submitter expressed concern regarding chemicals being brought onto private properties. The submitter requested that Material Safety Data Sheets (MSDS) and details of quantities of chemicals be provided to landholders. SunWater agrees to provide this information to landholders upon individual request. As outlined in Section 29.4.1 of the EIS, it is the responsibility of the contractor to have readily accessible copies of MSDS for any chemicals stored or used on the site.



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