SECTION 14: Water

14.1 OBJECTIVE
To ensure that the water (including storm-water) is not adversely impacted as a result of activities conducted at the Helidon Resources Site, Helidon.

14.2 REFERENCES
Environmental Protection Act 1994 – Application requirements for activities with impacts to Water.
Lockyer Valley Regional Council DA Conditions
Helidon Resources Site Based Management Plan
Helidon Resources Site Based Management Plan – Appendix 13 – Stormwater Management Plan
EMP Section 3 – Process Flow Chart
EMP Section 3.1- General Description of Operations
EMP Section 4 – Aspects Procedure
EMP Section 4.1 – Aspects and Impacts register
EMP Section 8 - Communication
HR-2-003 - Aspects and Impacts Assessment Register

14.3 ENVIRONMENTAL VALUES

14.3.1 Sensitive Places and Surrounding Land
The Helidon Resources Site is located approximately 40km north-east of Gatton and access to the quarry site is via a long driveway from Seventeen Mile road which is lined by natural vegetation.
An aerial photograph of the site forms part of this section and can be found in 10.3.2 of this document.
There is a natural vegetation barrier to the road and it is planned to leave this buffer in place. The Helidon Resources Extraction / Mining area (Lot 2) is surrounded by treed natural vegetation and it is also surrounded by other Sandstone Quarries on neighboring properties. Refer to scaled drawings HR-SMP-008 and HR-SMP-006 for vegetation buffers.

14.3.2 Aerial Photograph
14.3.3 Site Topography / Description
As indicated from the aerial photograph in 10.3.2 the Helidon Resources Site is surrounded by dense natural vegetation and adjacent to Wrights Creek which runs through the Helidon Resources Property. This creek is usually dry and only runs when large rain events occur. It is located in a steep valley approximately 25m below the existing quarry face and 40m below the proposed mining area for dimensional stone. While the process at Helidon Resources is styled to minimize runoff and scouring from the disturbed area, the natural slope of the topography and dense natural vegetation which surrounds the site is a vital tool for excellent containment and management of the surface water runoff.

14.3.4 Storm Water Management Plan
To further understand the environmental values of the site, please refer to the Site Based Management plan, in particular Appendix 13 for a detailed storm water management plan and associated drawings.

14.4 Possible Impacts to Identified Environmental Values
Besides the information supplied in Appendix 13 of the Site Based Management Plan, a process flow diagram of operations can be found in the section 3 of this EMP and a general description of Operations in section 3.1.
Section 4 details the procedure in place for used to identify and classify the impacts on the environment and section 4.1 identifies and classifies the significance of those identified from the process and this includes noise and how it impacts the community.
The Aspects and Impacts Assessment Register HR-2-003 takes the identified items in section 4.1 and provides a risk score to each item, thus providing the site management with a clear list of priorities to focus on in order to protect the environment of the site.

14.4.1 Proposed Management Practices
Management practices for the site can be referenced from the Site Based Management plan. Further practices and actions are detailed in the Aspects and Impacts Assessment Register HR-2-003.
All operations and activities will be conducted in a responsible manner to ensure that the water and soil environments are not impacted.

The site and facilities have been planned and designed to minimize any potential impact to the soil and water resulting from the mining / quarrying process.

Site stormwater / drainage plans have been drawn up for the site (refer Drawing HR-SMP004). Stormwater entry points have been identified and will be protected from material other than rain entering the system.

Environmental awareness for water is included in the induction enforcing the site action plan that is in place.

Work practices including the following will be established, promoted and maintained to minimize the potential for water and soil to be impacted with any pollutants:
• Regular housekeeping will be conducted to minimise sediment, oils, liquid, oxides and other raw materials used in the maintenance of plant entering the stormwater system;
• Spill kits are located on the site to prevent any substances impacting the soil and water;
• A visual inspection will be conducted on a regular basis to ensure that the stormwater channels are free of sediment, litter and debris and that there is no storage of waste/ materials outside the designated storage areas.

In the event of a fire in the site office, all efforts will be made to prevent contaminated firewater from leaving the site. Where it is possible firewater will be diverted to a contained area, and disposed of accordingly. The use of spill equipment, such as absorbent socks, to prevent contaminated water entering any storm-water system will be conducted if safe to do so. If firewater does escape the site, an incident investigation form will be completed and the Council contacted to discuss remediation work.

14.5 Complaints about Water
With the present management practices in place, any issues in relation to water should not cause community complaints. Should any complaints be received, the reason for the complaints will be investigated and documented. If the problem is likely to occur again, investigation into modification of process or introduction of pollution control devices or other equipment will be necessary. Community complaints will be handled in accordance to the Communications section of this EMP.

**14.6 RESPONSIBILITIES**

The Site Manager and Safety / Environmental Representative will be responsible for ensuring all control measures regarding water are carried out and maintained on site. All employees are responsible for conducting regular housekeeping in their work area. The Site Manager is responsible for handling / responding to environmental complaints.

**14.7 DOCUMENTATION**

Helidon Resources Site Based Management Plan