Operational policy

Mining

Release of mine-affected water under enhanced Environmental Authority conditions and Management of Cumulative Impacts in the Fitzroy Basin

Operational policies provide a framework for consistent application and interpretation of legislation by the Department of Environment and Heritage Protection. Operational policies will not be applied inflexibly to all circumstances. Individual circumstances may require an alternative application of policy.

An independent review commissioned by the Department of State Development Infrastructure and Planning, conducted by Gilbert and Sutherland Pty Ltd (Gilbert and Sutherland) into the operation of the 2012-2013 pilot in the Isaac River catchment has found that there is an opportunity to enhance the management of mine water release and therefore water quality outcomes within the Fitzroy Basin.

This operational policy is to establish an effective framework under which the expanded pilot for mine-affected water releases to the Fitzroy Basin will be implemented. Participating mines will manage mine-affected water releases through enhanced environmental authority (EA) conditions (‘pilot-style’ conditions), similar to those implemented as part of the Pilot release of mine-affected water in the Isaac River (the Pilot) during the 2012 - 2013 wet season. The policy provides protection to local environmental values such as stock and domestic and irrigation water supplies located downstream of mine water release points through the requirement for mines to conduct a detailed assessment on the localised impacts of these releases. The policy also specifies acceptable water quality limits for downstream locations that are subject to cumulative impacts from mine-affected water releases across the Fitzroy Basin. These management strategies have been put in place to ensure adequate protection of existing users located near mines and regional drinking water supplies.

Cumulative impact of releases

Trigger Criteria

This operational policy aims to manage the cumulative impact of mine-affected water releases across the Fitzroy Basin.

To do this, six Fitzroy Basin Trigger Values (‘trigger values’) have been derived for the monitoring locations specified in Table 1. If in stream electrical conductivity (EC) is reached or exceeded during times when mine affected water releases are being undertaken upstream of the monitoring locations specified in Table 1, further investigation will be undertaken to determine if all upstream mine affected water releases can continue. This investigation will determine if there is sufficient flow and appropriate water quality to provide sufficient dilution of release waters to minimise the risk of cumulative impacts.

This decision will be based on all current mine water releases, the potential for stream-flow across the basin, current rainfall forecasts, other monitoring point information existing within the Fitzroy Basin, and expert hydrology and water quality advice.

1 Participating coal mines are mines which have met the pre-requisites for participating in the pilot and have been issued with enhanced mine-affected water release conditions in accordance with this operational policy.
Operational policy
Release of mine-affected water in the Fitzroy Basin under enhanced environmental authority conditions

Table 1 – Fitzroy Basin Trigger Values

<table>
<thead>
<tr>
<th>River</th>
<th>Monitoring location</th>
<th>Trigger Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connors</td>
<td>Pink Lagoon (130404A)</td>
<td>650 μS/cm</td>
</tr>
<tr>
<td>Isaac/Connors</td>
<td>Yatton (130401A)</td>
<td>650 μS/cm</td>
</tr>
<tr>
<td>Comet/Nogoa</td>
<td>Rileys Crossing (130113A)</td>
<td>650 μS/cm</td>
</tr>
<tr>
<td>Mackenzie/Roper</td>
<td>Bingegang Weir (TBA)</td>
<td>650 μS/cm</td>
</tr>
<tr>
<td>Mackenzie</td>
<td>Coolmaringa (130105A)</td>
<td>650 μS/cm</td>
</tr>
<tr>
<td>Dawson</td>
<td>Beckers (130322A)</td>
<td>650 μS/cm</td>
</tr>
</tbody>
</table>

Cease Release Value
To protect drinking water supplies in the lower Fitzroy Basin, the policy intent is to ensure EC levels at the location specified in Table 2 are maintained below 650 μS/cm irrespective of values up-stream.

Table 2 – Cease Release Value

<table>
<thead>
<tr>
<th>River</th>
<th>Monitoring location</th>
<th>Cease Release Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitzroy</td>
<td>The Gap (130005A)</td>
<td>650 μS/cm</td>
</tr>
</tbody>
</table>

If the cease release value in Table 2 is exceeded, the administering authority may issue a cease release notification. A cease release notification can be issued to participating mines and any other coal mines located in the Fitzroy Basin with conditions that authorise the release of mine-affected water. Such notification will be given in the event that adverse flow conditions exist in one or more of the Fitzroy Basin sub catchments that have the potential to compound water quality impacts downstream. It will be based on factors including current mine water releases, the potential for stream flow across the basin, current rainfall forecasts, additional monitoring information existing within the Fitzroy Basin, and expert hydrology and water quality advice.

Once a cease release direction is issued, environmental authority holders will not be able to recommence releases until advised by the administering authority.

Note: The administering authority may, where there is the likelihood human health will be threatened or serious or material environmental harm has been or is likely to be caused, issue a cease release direction using the emergency direction powers listed in section 467 of the Environmental Protection Act 1994.

Note: Site-specific conditions of approvals for all mine-affected water releases require localised flow events sufficient to ensure the protection of water quality. The trigger values specified in Table 1 and cease release value specified in Table 2 are intended to provide a mechanism for managing the cumulative impacts of mine-affected water releases, and ceasing releases if required, as flows recede and salinity increases, particularly towards the end of the wet season. This management approach has been put in place during the pilot to ensure protection of regional drinking water supplies.

Environmental authority amendments
Each environmental authority holder who wishes to participate in the expanded pilot will require amendments to the environmental authority to establish site-specific release criteria. Amendments to the environmental
authority will be made on application and are intended to provide additional release opportunities for successful applicants ('pilot-style' conditions).

Site specific release criteria will be negotiated with each applicant based on the location of a participating coal mine within the catchment, supported by a detailed environmental assessment (e.g. sensitive receptors, downstream land uses) to be completed by the environmental authority holder. The environmental assessment must provide sufficient evidence to support the site-specific release limits, release rates and receiving water flow and quality limits proposed by the applicant.

Prerequisites for enhanced environmental authority conditions

The government requires that mines that are authorised to participate in the expanded pilot have implemented effective water management and made necessary investments to ensure that capture of mine-affected water is minimised, beneficial reuse opportunities are maximised and mine water release can be regulated and monitored. Participating mines will be required to demonstrate to the administering authority that they meet a number of prerequisites relating to effective water management practices on site, including:

- adequate separation of mine-affected and non-mine-affected catchments on site.
- adequate control of mine-affected water generation.
- demonstrated ability to actively control mine-affected water releases.
- mine-affected water catchments are being effectively reduced by the environmental authority holder’s implemented rehabilitation program.
- ability to monitor all mine-affected water releases in real time;
- the ability to access real-time water quality data from relevant downstream compliance monitoring locations.

This must be effectively demonstrated to the administering authority through an assessment and certification by a suitably qualified person that the mine has met the above prerequisites.

Note: Guidance material has been developed to assist in the application of this operational policy. This guidance material outlines the administering authority’s expectations in relation to effective water management practices for mine sites in the Fitzroy Basin. This information will assist environmental authority holders to better understand their responsibilities in achieving acceptable environmental outcomes in relation to water management on site.

Additional notification conditions

Conditions requiring environmental authority holders to notify landholders immediately downstream and relevant local government authorities will be included with the enhanced release conditions to ensure adequate information transfer to the community and transparency.

---

2 Any attempt by an environmental authority holder to deceive the administering authority or provide false information in relation to their compliance with this requirement will be subject to high level enforcement action such as prosecution. This is the preferred enforcement option for unlawful conduct in accordance with the administering authority’s enforcement guidelines. Ultimately, the administering authority has the discretion to determine the appropriate response to unlawful conduct under the legislation administered by it.
These conditions will in most circumstances reflect effective landholder engagement strategies in place on coal mines. The conditions will provide for convenient notification of landholders and other parties at the commencement of mine-affected water releases with information that will assist with the effective management of property and services.

**Note:** Examples of additional conditions requiring notification of downstream landholders and/or relevant local governments are included within the guidance material, to assist in the application of this operational policy. Conditions will be developed on a case by case basis, with consideration for specific requirements that may apply to a particular mine location within the catchment.

**Requirement to contribute to the enhanced monitoring program**

Participating coal mines will be required to contribute towards the enhanced monitoring program, managed by the Department of Natural Resources and Mines. The cost of the program will be shared equally across all participating coal mines. The required contribution from participating mines will be capped prior to commencement of the wet season. The Department of Natural Resources and Mines will issue an invoice to all participating coal mines on the first working day in May 2014, based on actual program costs. The capped amount will be reviewed annually, to allow for any future amendments to the requirements of the enhanced monitoring program. Payment of the nominated contribution will be a requirement of the environmental authority, and continued access to the enhanced release conditions.

**Disclaimer**

While this document has been prepared with care it contains general information and does not profess to offer legal, professional or commercial advice. The Queensland Government accepts no liability for any external decisions or actions taken on the basis of this document. Persons external to the administering authority should satisfy themselves independently and by consulting their own professional advisors before embarking on any proposed course of action.

**Approved By**

<table>
<thead>
<tr>
<th>Melissa Wells</th>
<th>04 February 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>Date</td>
</tr>
</tbody>
</table>

Department of Environment and Heritage Protection

**Enquiries:**

Permit and Licence Management
Ph. 13 QGOV (13 74 68)
Fax. (07) 3330 5875
Email: palm@ehp.qld.gov.au