

Information Sheet

Environmental Protection Act 1994

Incorporating greenfield sites and exploration disturbance into progressive rehabilitation and closure plans

This information sheet provides general guidance about how to approach certain aspects of PRCP schedule development. This guidance does not represent a policy position, but rather a suggested approach which should be considered on a site-specific basis and in consultation with the relevant departmental business centre.

Table of Contents

1	Background	2
2	Greenfield sites (sites without disturbance)	2
2.1	Issue	2
2.2	Suggested approach	3
2.2.1	Scenario 1 – Greenfield sites where operations are contingent on other approvals	4
2.2.2	Scenario 2 – Greenfield sites with no current plan for future operations under current approvals	5
3	Exploration	5
3.1	Issue	5
3.2	Suggested Approach	6
3.2.1	Option 1 - EA imposes rehabilitation conditions regarding land disturbed by exploration activities	7
3.2.2	Option 2 - EA does not impose rehabilitation conditions regarding land disturbed by exploration activities	8
4	Further information	9



Incorporating greenfield sites and exploration disturbance into progressive rehabilitation and closure plans

1 Background

The Progressive Rehabilitation and Closure Plan (PRC plan) requirements are a critical element of the Queensland Government's Mined Land Rehabilitation Policy and the rehabilitation and financial provisioning reforms. PRC plan requirements were inserted in the *Environmental Protection Act 1994* (EP Act) by the *Mineral and Energy Resources (Financial Provisioning) Act 2018* (MERFP Act). The requirements commenced on 1 November 2019.

The main purpose of a PRC plan is to (s.126B of the EP Act):

- Maximise the progressive rehabilitation of land to a stable condition through a requirement to plan for how and where activities will be carried out.
- Outline the condition the land must be rehabilitated to before the environmental authority (EA) may be surrendered.

A PRC plan consists of two parts, (1) a rehabilitation planning part and (2) the progressive rehabilitation and closure plan (PRCP schedule). An applicant submits a proposed PRC plan to the administering authority to assess. The PRCP schedule once approved is a statutory document which the holder must comply with.

In addition to the legislative amendments relating to PRC plans, a statutory guideline [Progressive rehabilitation and closure plans \(ESR/2019/4964\)](#) was also produced to assist applicants to prepare PRC plans. As the implementation of the PRC plan requirements has progressed, issues have been identified where additional guidance can assist. This information sheet is intended to address two issues, they are –

- (1) How to treat greenfield sites (or sites where no disturbance exists) when preparing a PRCP schedule; and
- (2) How to incorporate exploration disturbance into a PRCP schedule.

The following guidance is intended to provide suggested approaches that allow EA holders to retain the ability to flexibly plan and execute exploration campaigns and to avoid unintended administrative compliance issues, while meeting legislated requirements and the objectives of the progressive rehabilitation and closure plan regulatory framework.

2 Greenfield sites (sites without disturbance)

2.1 Issue

All new applications for site specific (ineligible environmentally relevant activity (ERA)) mining activity on a mining lease must be accompanied by a proposed PRC plan as part of the application process. The EP Act also includes a range of transition provisions to require existing mining EA holders to prepare and submit PRC plans for their operations, which then undergo an assessment process.

All applicants are required to prepare a proposed PRC plan in accordance with the EP Act (e.g. s.126C and 126D) and the statutory guideline. This includes stating when each rehabilitation milestone or management milestone is to be achieved in the form of completion dates which must be 10 December of the relevant calendar year nominated by the applicant. This aligns with the department's expectation that milestone completion timeframes are fixed specific dates rather than conditional or contingent deadlines and has advantages with respect to the assessment requirements of the EP Act, the Environmental Protection Regulation 2019 and the overall enforceability of the PRCP schedule.

Some specific challenges have been identified when considering milestone completion timeframes for greenfield sites. In most cases, applicants will develop a PRCP schedule based on their current resource estimates and life of mine plan with a reasonable level of confidence about the commencement and progression of mining activities through to the end of mine life. However, there are some circumstances

Incorporating greenfield sites and exploration disturbance into progressive rehabilitation and closure plans

where considerable uncertainty exists and it is difficult to nominate fixed specific dates for the PRCP schedule.

For example, in some circumstances a new proposed mining project may have a range of associated approval requirements (grant of tenure, water allocation, *Environmental Protection and Biodiversity Conservation Act 1999* etc) that create uncertainty about if/when mining activities will be able to commence. In other cases, relevant to transitional PRC plans, approval may have been obtained for a mining project historically but it was always the case that the viability and timing of the project was contingent on external factors (finance, transport infrastructure, market demand etc) and it is unclear because of these factors if/when the project will commence.

The simplest approach to dealing with these challenges is to prepare the PRC plan based on the best available information and current mine plan and amend the timeframes in the PRCP schedule in future if/when required. This is the general approach that is recommended by the department, but it is also recognised that there are some important limitations to this approach when applied to greenfield sites.

Firstly, if the commencement of the mining activity is significantly delayed then it may result in difficult compliance situations in future. This is because the PRCP schedule is likely to require rehabilitation to be completed before the mining activity has progressed sufficiently to enable rehabilitation to occur. In an extreme example, the relevant disturbance that the PRCP schedule is requiring to be rehabilitated may not have occurred yet.

The other key limitation is that the amendment provisions of the EP Act specify that changing when a rehabilitation milestone or management milestone will be achieved by more than 5 years or extending the day by which rehabilitation of land to a stable condition will be achieved are major amendments.

IMPORTANT NOTE

While it is possible that the challenges and uncertainties identified in the section above may also apply to some extent in existing operational sites, it should be noted that the suggested approaches discussed below are only considered appropriate for greenfield sites. This is because greenfield sites, by definition, have no disturbance from the mining activity yet and creating some flexibility in the timeframe for delivery of rehabilitation where disturbance has not yet occurred is unlikely to result in a material change in environmental harm and is not a delay to the progressive implementation of rehabilitation. Where sites have existing disturbance the PRCP schedule must include specific milestone completion dates that provide for the completion of each rehabilitation milestone as soon as practicable after the land becomes available for rehabilitation. It is also not appropriate to apply this guidance to amendment scenarios that seek to extend the life of mining operations and/or add disturbance because it is likely these scenarios could result in a delay to the completion of rehabilitation beyond what was originally approved and should be subject to the amendment provisions of the EP Act.

2.2 Suggested approach

There are several different approaches that an applicant (new or existing mining EA holder) may wish to consider when determining the best way to develop the PRC plan for their site and approaches may vary for each site, depending on the relevant site-specific circumstances.

Ideally the EA, mine plan and PRCP schedule should all align. If a site has no current disturbance, this does not mean a PRCP schedule cannot be developed – the schedule would relate to the proposed mine plan and corresponding disturbance that occurs and when the relevant land disturbed by mining activities becomes available for rehabilitation. This is considered the best approach and is the default position that should be considered. However, in recognition of the challenges identified above, the department has considered multiple alternative approaches/solutions for a variety of circumstances that have already been identified.

Incorporating greenfield sites and exploration disturbance into progressive rehabilitation and closure plans

2.2.1 Scenario 1 – Greenfield sites where operations are contingent on other approvals

In the case where there is no existing disturbance, commencement of mining operations is contingent on other approval requirements (e.g. a “granted not effective EA” awaiting grant of tenure or an effective EA awaiting further statutory approvals) and there is no way of defining an appropriate timeframe for commencement, the suggested approach is to design a full schedule of rehabilitation with specific timeframes and a requirement to nominate a start date by way of condition – i.e. the schedule provides the full timetable of rehabilitation, but it slides based on a nominated start date that the holder must provide before commencement. The additional condition/s must be included in both the PRCP schedule and the corresponding EA to avoid any inconsistency arising (see section 202E of the EP Act).

An example of a potential PRCP schedule RA table is below. Note that the milestone timeframes are in the format 10 Dec xxxx + yy years. Where xxxx is the year that will be nominated at a future time for mining activities (disturbance) to commence and yy is the additional period of time added to that xxxx year to determine the milestone completion date or when a relevant area becomes available for rehabilitation. This enables the administering authority to fulfill its assessment requirements as it should still be possible to determine whether each rehabilitation milestone is being completed as soon as practicable after the land becomes available for rehabilitation. It should also allow some flexibility for the holder in that they will be able to nominate a start date for the mining activities when it becomes clear and the schedule will then apply relatively from that time.

Condition examples are as follows, noting that this may be further refined during the assessment process –

PRCP 1 Prior to any significant disturbance occurring within an authorised mining area the holder must nominate in writing to the administering authority, a commencement date for the mining activities in the format of a calendar year.

(Note that for the purposes of this condition significant disturbance means mechanical disturbance of the land surface or clearing of vegetation but does not include access tracks for land management, fire breaks or disturbance associated with environmental monitoring)

PRCP 2 Mining activities must not commence earlier than the nominated calendar year under condition PRCP 1.

PRCP 3 Once a calendar year is nominated under condition PRCP 1, that nominated year is to be read in place of xxxx in the PRCP schedule milestone completed by and area available timeframes (e.g. if the nominated year is 2025, then a milestone completed by date of 10 Dec xxxx + 3 years in the PRCP schedule is taken to be 10 Dec 2028 for the purposes of determining compliance with the milestone date).

Incorporating greenfield sites and exploration disturbance into progressive rehabilitation and closure plans

Post-mining land uses (PMLU) - Example Only										
Rehabilitation area				RA1						
Relevant activities				Waste Rock Dump						
Total rehabilitation area size (ha)				70						
Commencement of first milestone: RM 1				01 July xxxx						
PMLU				Native Ecosystem						
Date area is available	10 Dec xxxx +10 years	10 Dec xxxx + 15 years	10 Dec xxxx + 20 years							
Cumulative area available (ha)	10	30	70							
Milestone completed by	10 Dec xxxx + 11 year	10 Dec xxxx + 13 years	10 Dec xxxx + 16 years	10 Dec xxxx + 20 years	10 Dec xxxx + 25 years	10 Dec xxxx + 30 years				
Milestone Reference	Cumulative area achieved (ha)									
RM1	10		40	70						
RM2		10	40	70						
RM3			30							
RM6			10	40	70					
RM8					40	70				

Note – the holder must nominate to the administering authority a calendar year to be read in place of xxxx prior to any significant disturbance occurring. Refer to condition number PRCP ##.

2.2.2 Scenario 2 – Greenfield sites with no current plan for future operations under current approvals

For sites that have an EA and tenure, but no disturbance and no plans for disturbance under current approvals or future plans for mining onsite, it should first be determined whether the site can be surrendered under the relevant provisions of the EP Act.

Alternatively, if the mine plan is likely to change and future approvals will be required prior to disturbance, the department advocates that a PRC plan be prepared on the basis of the existing approval then an amendment can be made at a later time once the plan for development of the site becomes clear. Once a PRCP schedule is in place an amendment application can be progressed for the EA and PRCP schedule together which ensures alignment between the two approvals.

A third option is to consider amending the existing EA to change to a standard or variation approval (eligible ERA mining activity) as this would remove the requirement to prepare a PRC plan and have a PRCP schedule in place for the activity.

Where the EA authorises disturbance but there is no actual plan to carry out that part of the activity, it may be possible to leave that part out of the PRCP schedule (the PRCP guideline provides that undisturbed land should not be included as a rehabilitation area). However, this would be subject to the administering authority adding conditions to the EA and PRCP schedule to limit the extent of mining activity unless there is a PRCP schedule in place for the activity. It would also need to be clearly explained in the PRCP Planning Part.

3 Exploration

3.1 Issue

The EP Act requires that PRCP schedules attribute a post mine land use (PMLU) or non-use management area (NUMA) to the area of each resource tenure described in the PRC plan. Undisturbed land must be assigned a PMLU and identified in the final site design. Land disturbed by mining activities must be assigned a PMLU or identified as a NUMA and be progressively rehabilitated or managed in accordance with the statutory requirements of the PRCP schedule.

Land on resource tenures where exploration activities have been undertaken is considered to be disturbed.

Incorporating greenfield sites and exploration disturbance into progressive rehabilitation and closure plans

Holders of EAs for site-specific mines have identified a number of barriers associated with nominating the location of specific rehabilitation areas (RA) and forward planning rehabilitation timeframes for exploration activities. Exploration campaigns require a deal of flexibility in their planning, location and execution and this is not readily accommodated within a progressive schedule of rehabilitation. Unlike disturbance from mining which is planned and executed in accordance with the mine plan, exploration is often undertaken on an ad-hoc basis, influenced by a number of factors such as resource price and demand, the outcomes of preceding exploration programs and nature of the geological formations. Consequently, the timing of a campaign, location and number of exploration boreholes etc. is not always predictable and particularly so across an extended life-of-mine period.

Exploration activities involve a variety of methods to prospect or explore for mineral deposits. The type of exploration activities relevant to this guidance material are those which meet the eligibility criteria and standard conditions defined by [Eligibility criteria and standard conditions for exploration and mineral development projects – Version 2](#) (ESR/2016/1985) (the code). For example, seismic/geophysical surveys and gridlines; borehole drilling campaigns which may also include excavations for sumps; and other disturbance caused by associated campsites and access tracks. Older EAs often refer to the previous version of the code ([Code of Environmental Compliance for Exploration and Mineral Development Projects](#) (EM586)). The recommended approach outlined here is not relevant for exploration activities described by ERA 9 and ERA 10¹.

It is important to note that no additional areas or entitlement to disturb areas for exploration work can be authorised by the PRCP schedule. The EA continues to be the instrument through which disturbance is approved.

3.2 Suggested Approach

As previously mentioned, the level of risk and uniformity of methods used to undertake exploration has been acknowledged through the introduction of eligibility criteria and standard conditions in the code. Where necessary and desirable, EAs impose conditions that require rehabilitation of exploration activities to be completed in accordance with the code (or in accordance with specific sections of the code). The code specifies the steps and measures which must be taken as part of rehabilitation work, and the timeframe within which rehabilitation must be completed.

Considering this, two options are recommended based upon what the relevant EA states at the time of preparing a proposed PRC plan:

1. The EA imposes conditions regarding rehabilitation of land disturbed by exploration activities (section 3.2.1);
2. The EA does not impose conditions regarding rehabilitation of land disturbed by exploration (section 3.2.2).

¹ ERA 9 a mining activity involving drilling, costeaning, pitting or carrying out geological surveys causing significant damage.

ERA 10 investigating the potential development of a mineral resource by large bulk sampling or constructing an exploratory shaft, adit or open pit. Where land is disturbed by these ERAs, it is anticipated that these areas will be progressively rehabilitated and incorporated into the PRCP schedule in a manner similar to other large scale mining activities.

Incorporating greenfield sites and exploration disturbance into progressive rehabilitation and closure plans

3.2.1 Option 1 - EA imposes rehabilitation conditions regarding land disturbed by exploration activities

Where an EA authorises exploration activities and imposes specific conditions regarding rehabilitation of areas disturbed by exploration, the preferred approach is that -

- the EA conditions regarding rehabilitation of exploration areas are imposed on the PRCP schedule and removed via an EA amendment from the EA after the PRCP schedule is approved;
- A specific 'exploration' RA and corresponding defined locations/spatial data to accompany the PRCP schedule is not required;
- The conditions imposed on the PRCP schedule require that rehabilitation outcomes align to the relevant PMLU for the area disturbed by exploration activities.

Regarding the final dot point, it is noted that the code requires land to be rehabilitated in line with the surrounding land use. However, the PRCP framework requires all areas on the resource tenure to have a nominated PMLU. Consequently, the conditions imposed on the PRCP schedule will specifically require that rehabilitation outcomes align to the relevant PMLU on the disturbed land.

Example

An EA imposes the following conditions:

H16 Land subject to exploration activities previously approved under EPCxxx that subsequently became MLyyy, must be rehabilitated in accordance with the code.

H17 Land subject to exploration activities carried out on MLxyz subsequent to the grant of the relevant mining lease, must be rehabilitated in accordance with the code.

The PRCP schedule will be drafted with the following aspects-

- As required for all PRCP schedules - the final site design will identify a PMLU or nominate a NUMA for the area of the resource tenure.
- Two conditions will be imposed on the schedule -

PRCP<x> Land subject to exploration activities previously approved under EPCxxx that subsequently became MLyyy, must be rehabilitated in accordance with the code, with the exception that land must be rehabilitated to a stable condition[^] that achieves the relevant PMLU for the area of disturbance as indicated on the final site design.

PRCP<y> Land subject to exploration activities carried out on MLxyz subsequent to the grant of the relevant mining lease, must be rehabilitated in accordance with the code, with the exception that land must be rehabilitated to a stable condition[^] that achieves the relevant PMLU for the area of disturbance as indicated on the final site design.

[^]stable condition is defined by s.111A of the EP Act

- Following approval of the PRCP schedule, the EA will be amended by the department to remove Conditions H16 and H17 (s.756 EP Act).

Example

An EA specifies an 'Exploration Drilling and 3D Seismic' Mine Domain with mine feature descriptions, maximum disturbance, location and constraints identified. The EA imposes a condition regarding when rehabilitation in exploration located in environmentally sensitive areas must be completed. All areas of disturbance (including exploration) must be rehabilitated in accordance with the rehabilitation landform criteria (land schedule).

The EA holder has submitted a proposed PRCP schedule that identifies a specific exploration RA (RA5), supported by a number of rehabilitation milestones and criteria. RA5 has been included on the reference

Incorporating greenfield sites and exploration disturbance into progressive rehabilitation and closure plans

map, with a nominated PMLU of grazing. The table of scheduled progressive rehabilitation states when land in RA5 becomes available for rehabilitation and when milestones will be completed. The total RA size is 275ha and the final milestone for the entire area will be completed by 10/12/2046.

The EA holder has proposed an approach that is similar to that recommended by option 2 but with one difference. That is, the EA holder has been able to adequately forecast an exploration campaign with timeframes and a spatially bound area. This is considered to be an acceptable outcome, in particular it does not conflict with the current EA requirements.

3.2.2 Option 2 - EA does not impose rehabilitation conditions regarding land disturbed by exploration activities

Where an EA authorises exploration activities but does not impose specific conditions regarding rehabilitation of areas disturbed by exploration, the department's preferred approach will be that the PRCP schedule propose a specific rehabilitation area, with supporting milestones and timeframes but is not spatially bound.

Consequently, exploration activities will continue to be undertaken anywhere on the resource tenure (in accordance with the EA) but specific locations (i.e. points or polygons) will not be identified on PRCP maps or spatial information. The exploration RA will be supported by a relevant milestone(s) and criteria appropriate for the exploration activities. A total disturbance area will be indicated against the exploration RA and progressive rehabilitation timeframes proposed.

For instances where exploration activities for a particular period nominated within the PRCP Schedule are not undertaken, and there is no disturbed land requiring rehabilitation, a condition should be imposed on the PRCP schedule to require an application to amend the PRCP schedule.

Example

An EA imposes no conditions regarding how land disturbed by exploration activities must be rehabilitated. This includes no specific mention of exploration domains in the rehabilitation landform criteria (Land schedule).

The PRCP schedule will be drafted with the following aspects:

- i. As required for all PRC plans - the final site design will identify a PMLU or nominate a NUMA for the area of the resource tenure.
- ii. The reference maps (including the required spatial information) which identify the boundary of each RA and improvement area (IA) will not be required to show the location(s) of the exploration RA (as this RA is not spatially bound). However, each reference map must state that the exploration RA applies to any area (or a particular sub-area) of the resource tenure where exploration activities are approved by the relevant EA. The map should clearly identify where areas for exploration are permitted. This may be achieved via the map legend or as a footnote on the map.
- iii. The exploration RA is included in the table of progressive rehabilitation with supporting milestones and milestone criteria and timeframes for completion of each milestone.
- iv. A condition imposed on the PRCP schedule -

PRCP<x> Where land is not disturbed by exploration activities and consequently does not require rehabilitation within the period nominated for RA <xy>, an application to amend the PRCP schedule must be submitted to the Administering Authority no later than twenty (20) business days prior to the first milestone completion date for the RA.

Incorporating greenfield sites and exploration disturbance into progressive rehabilitation and closure plans

4 Further information

Statutory guideline [Progressive rehabilitation and closure plans \(ESR/2019/4964\)](#)²

Information sheet [Common issues with progressive rehabilitation and closure plan applications \(ESR/2021/5775\)](#)

[Frequently asked questions Progressive rehabilitation and closure \(PRC\) Plans](#)

[Business Queensland website Progressive rehabilitation and closure plan for mined land](#)

Disclaimer

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² This document is available on the Business Queensland website at www.business.qld.gov.au, using the publication number ESR/2019/4964 as a search term.