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GUIDELINE

MINE REHABILITATION PORTAL

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AMENDMENT SCHEDULE		
Date	Version	Amendment
2 July 2021	1	First published
15 December 2021	2	Update to email contact address. Clarification that Mine rehabilitation portal only applies to large mines. Updated domain value 'Forecast Disturbance (Total)' to 'Forecast Disturbance' in the ForcstA (Forecast Area) domain list in each Forecast data theme. Added extra guidance in spatial reference section relating to 'Other' - new coding options available. Added troubleshooting section.
17 March 2022	3	Amended guidance in spatial reference section and Table 2 relating to 'Other' coding options and where multiple rehabilitation objectives apply to a spatial reference area. Added definitions for 'water management areas' and 'water storage areas' to avoid confusion. Improved description for contour intervals used for current and final landform themes.
1 September 2022	4	Added information under 'Schema requirements' section to clarify the application of the defined values for the 'Forecast Area' field, associated with Forecast data themes – Year 1, 2

		and 3. Amended the 'Description' section in Attached Tables 8, 9 and 10 accordingly. Added a new section and Table 3 to explain the Rehabilitation Key Performance Indicator Report (KPI report). Updated the Glossary to include definitions relating to the KPI report.
1 May 2023	5	Update to Reporting Year selection guidance. Removal of section relating to calculation of KPIs (G, H and J).
13 Dec 2023	6	Inclusion of definition of final void in the Glossary and new *Explanatory note 1: Spatial reference code for final voids*.

Contents

Purpose of this guideline

Conditions of a mining lease granted under the *Mining Act 1992* require the lease holder to:

- prepare a rehabilitation management plan (large mines only) in the form and way approved by the Secretary. This includes the submission of a final landform and rehabilitation plan via the Mine rehabilitation portal.
- prepare an annual rehabilitation report (small and large mines) in the form and way approved by the Secretary. This includes (for large mines) the submission of spatial data relating to disturbance areas, rehabilitation status and achievement of established rehabilitation during the reporting period in accordance with *Plan 1 – Status of mining and rehabilitation at completion of annual reporting period.*
- prepare a forward program (small and large mines) in the form and way approved by the Secretary. This includes (for large mines) the submission of spatial data relating to a three-yearly forecast of cumulative disturbance and rehabilitation progression that is planned over this three-year period in accordance with the submission of *Plan 2 – Mining and rehabilitation three-year forecast*.

The purpose of this guideline is to assist lease holders with the submission of the above spatial data (as detailed in Table 1) via the Mine rehabilitation portal.

Mine rehabilitation portal

The Mine rehabilitation portal was developed to streamline the collection of rehabilitation geographical information system (GIS) spatial data from lease holders (large mines only). The Mine rehabilitation portal is an online portal that can be accessed via the internet after account registration and approval. This will allow for collecting spatial data into a centralised geodatabase, which will be used by us to monitor and regulate the rehabilitation of mining activities.

Portal functions

The Mine rehabilitation portal provides a secure portal (or web application) to allow lease holders to submit, and the Department to review, spatial information within the web application's map viewer. Spatial data provided in a GIS format facilitates a range of functions that are not readily achieved by reviewing data in hard copy or PDF format. These functions include:

- providing 2 options for the submission of spatial data:

  - uploading completed shapefiles/file geodatabases through the portal or
  - via the online tracing workflow within the map viewer.
- online validation of data to facilitate submissions
- calculating rehabilitation key performance indicators (KPIs) using the KPI report workflow
- recording and maintaining all submissions logged within the portal that can then be subsequently downloaded
- reviewing existing and previous data submissions within the map viewer.

Our website provides a range of guidance material, including how-to videos, covering the functions outlined above. This includes guidance about how to submit files, using tracing features, uploading imagery and viewing maps.

Computer environment information

The Mine rehabilitation portal is designed to meet World Wide Web Consortium (**W3C**) compliant browsers that are compatible with HTML5 developed sites. The recommended environment is a Microsoft-based computer, with a modern, and up-to-date operating system (at least Windows 7) with the following browsers:

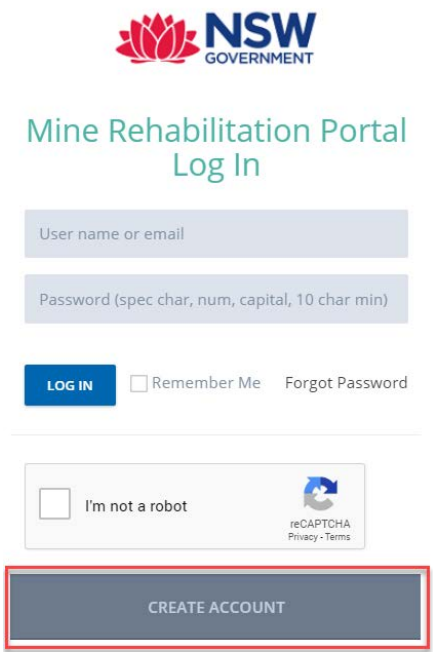
- Google Chrome: version 56 or greater (preferred)
- Internet Explorer: version 11 or greater
- Edge: version 39 or greater (Windows 10 or higher)
- Firefox: version 55 or greater.

Portal access and account registration

The Mine rehabilitation portal can be accessed at the following web address: minerehabilitationportal.nsw.gov.au

Representatives from each mine are required to register their details via the ‘Create Account’ section link at the bottom of the initial login page (see Figure 1).

***Figure 1**: Use the Create Account button on login screen to start registration process*



The following should be considered when registering:

- Each mine should select appropriate representatives who will be responsible for uploading and reviewing the required spatial data in accordance with Table 1.
- Representatives should use official company domain name email addresses when registering. This will streamline the approval process.
- Consultants acting on behalf of lease holders can apply for access, however, delays may be experienced as we will refer to the lease holder to confirm permissions for these consultants to access the Mine rehabilitation portal on their behalf. It is recommended that the title holder representative sends an email to nswresourcesregulator@service-now.com confirming approval for the nominated consultant.
- Registration of an account also requires an email confirmation step before account verification can proceed.
- Users will be informed by email notification once their account has been approved.

You will be required to enter the mine site you require access for. You can register for access to multiple mine sites (see Figure 2).

***Figure 2**: You can register for multiple mines using the mine select field during registration*

Spatial data format requirements

We require GIS data to be submitted in a defined format (schema) to enable the compilation of data from large mines across NSW into one database. A defined schema has been created for each theme to ensure that data from different mines can be populated into a statewide database. This ensures consistency and accuracy of the data being submitted.

Theme details and submission requirements

***Table 1**: Theme submission table*

THEME NAME	SUBMISSION REQUIREMENTS
■ Rehabilitation ■ Disturbance ■ Forecast Data Year 1 ■ Forecast Data Year 2 ■ Forecast Data Year 3 ■ Current Landform Contours	Annually - aligned with annual rehabilitation report and forward program reporting requirements for large mines.
■ Final Land Use ■ Final Landform Features ■ Final Landform Contours ■ Project Approval Boundary	Required to fulfil requirements of final landform and rehabilitation plan (large mines only).

Schema requirements

The tables attached at the end of this guideline (Tables 1-10) describe the schema requirements for the themes listed above. Data submitted must follow the schema format to ensure successful validation and submission into our database. The Mine rehabilitation portal ensures that data is compliant with the schema through an automated validation process before it can be submitted.

Lease holders should refer to the guidance notes provided for each attribute in the 'description' column in Tables 1-10.

The information below provides important points to note for the data submission.

All themes

Domain lists – some of the fields require specific values populated only (domain lists) as defined in Tables 1-10. Information provided in these fields must exactly match the list provided, otherwise the Mine rehabilitation portal will reject the data set (e.g. spelling and spaces must be identical). The template File Geodatabase provided as a downloadable file within the Mine rehabilitation portal link has these domain lists prepopulated. Refer to File Upload section in this guideline.

Mandatory fields – themes include both mandatory and non-mandatory attributes. Mandatory attributes must be included for the data to pass validation. Non-mandatory attributes are considered by us as useful but not compulsory. We therefore recommend providing this data, if available.

Reporting year selection (during upload) - The reporting year selected in the upload page must correlate to the year in which the reporting period ends (e.g. if the reporting year ends in March 2019, the reporting year is 2019). The Mine rehabilitation portal provides an option to select the previous year as the reporting year, in instances when reporting period and submission date are in separate years (e.g. if the reporting period ends 31 December 2020, the submission will occur in early 2021. The reporting year would be 2020).

Please note that mines with a reporting period that aligns to a calendar year (i.e. ending 31 December) will require the previous reporting year to be selected for themes associated with the annual rehabilitation report (disturbance, rehabilitation and current landform contours) and the current reporting year to be selected for themes associated with the forward program (forecast data Year 1, Year 2 and Year 3) (e.g. if the reporting period ends on 31 December 2020, then 2020 needs to be selected for the themes associated with the annual rehabilitation report and 2021 needs to be selected for the themes associated with the forward program).

Rehabilitation theme

Polygons should represent annual rehabilitation progress, where rehabilitation methods/attributes are similar. Polygons should further be created where there are differences in attribute information (e.g. if different soil treatment was used or if areas are at different phases of rehabilitation or targeting different vegetation communities (e.g. plant community types)).

Year vegetation established – This include details in endorsement field for any uncertainties or for data over multiple years. In the event of multiple years, only enter the most recent year of activities and include details of previous activities (e.g. staged establishment of multi-story communities) in the 'Additional Information' field. If vegetation is not established, use date of year landform established until vegetation is established and then update.

Disturbance theme

Polygon areas should be created based on the different mining domain types. Polygons should be further refined where differences in attribute information exists (e.g. if different disturbance year). The disturbance theme must show the total cumulative mine disturbance footprint up until this reporting year, including areas that have been rehabilitated. This is important for the calculation of KPI data.

The use of 'Other' as a mining domain type should be used only in exceptional circumstances (i.e. the domain list options provided should be used as far as reasonably possible).

Current landform contours

Polylines are required to be created for contours using either 1 metre or 5 metre intervals. We ask lease holders to assess and select the interval that will best provide information on the current landform for their mine.

Generally, mines with small disturbance areas or low levels of topographical relief across the mining disturbance area will use contours with one metre intervals. Mines with large disturbance areas with relatively high levels of topographical relief will select contours with 5 metre intervals.

Final land use theme

Spatial reference field - The spatial reference is an alphanumeric code used for linking rehabilitation objectives/rehabilitation completion criteria with the spatial data for the final land use theme. The spatial reference is created by combining the code of the final land use domain and mining domains for each polygon as set out in the Table 2 below (e.g. A2 would be the spatial reference for a final land use of native ecosystem that has a mining domain of tailings storage facility). Every final land use polygon must have a spatial reference code.

The use of 'Other' as a final land use domain and mining domain should be used only in exceptional circumstances (i.e. the domain list options provided should be used as far as reasonably possible). If 'Other' is used, lease holders will then be required to provide further details under the 'Additional Information' field to describe the final land use domain and mining domain.

For mines that have multiple rehabilitation objectives for the same spatial reference code, lease holders must use other fields in the final land use theme to distinguish between these areas (as separate polygons) as follows:

- if the rehabilitation objective applies to achieving a specific vegetation community, identify the type of vegetation in the 'Vegetation Community' field within the final land use theme

for the applicable polygon. For example, under the final land use category of 'Native Ecosystem', there may be separate rehabilitation objectives based on vegetation type such 'woodland forest type x' and 'woodland forest type y'.

- if the rehabilitation objective applies to something other than a vegetation community, identify the information in the 'Additional Information' field within the final land use theme for the applicable polygon. For example, under the final use category of 'Infrastructure', there may be separate rehabilitation objectives based on the final use such as road construction, residential etc.

Providing this information in combination with the spatial reference code will then allow the spatial extent of each rehabilitation objective to be identified.

***Table 2**: Codes for spatial reference field*

FINAL LAND USE DOMAIN	CODE	MINING DOMAIN	CODE
Native ecosystem	A	Infrastructure area	1
Agricultural – grazing	B	Tailings storage facility	2
Agricultural – cropping	C	Water management area	3
Rehabilitation biodiversity offset area	D	Overburden emplacement area	4
Industrial	E	Active mining area (open cut void)	5
Water management areas	F	Underground mining area (SMP)	6
Water storage (excluding final void)	G	Beneficiation facility	7
Heritage area	H	Other (add details in additional information field to name the mining domain)	8
Infrastructure	I		
Final void	J		
Other (add details in additional information field to name the final land use domain)	K		

Explanatory note 1: Spatial reference code for final voids

Table 3: Codes for spatial reference field provides details of the spatial reference codes that need to be used for both the underlying mining domain and the final land use domain when submitting the final land use theme. The table below provides further guidance for spatial code referencing where there is a final void as part of the final land use theme.

Final land use rehabilitation outcome for void (or portion of)	**Final land use domain (and Code)**	**Mining domain (and Code)**	**Comments**
Portion of a final void predicted to be filled with surface / groundwater	Final void (J)	Active mining area (open cut void) (5)	Type of vegetative growth (e.g. native grasses or pasture) to be noted in 'vegetation community' column with purpose of providing erosion protection for the period until submerged by water. A polygon depicting the area of the final void 'pit lake' is to also be included in the final landform features theme.
High walls	Final void (J)	Active mining area (open cut void) (5)	
Low wall where sustainable agricultural grazing can be established	Agricultural – grazing (B)	Active mining area (open cut void) (5)	Final land use of Agricultural – grazing (code B) cannot be used where: • Grazing may increase the risks of slope stability and erosion due to the profile and or geochemical risks associated with the low wall of the void. • The slope angle precludes the use of standard agricultural equipment • Area of the low wall will be submerged by the predicted final water level within the void.
Low wall where sustainable native vegetation can be established	Native ecosystem (A)	Active mining area (open cut void) (5)	Final land use code of Native ecosystem (code A) cannot be used where the area of the low wall will be submerged by the predicted final water level within the void and revegetation is for temporary stabilisation only until equilibrium occurs.

Final land use rehabilitation outcome for void (or portion of)	Final land use domain (and Code)	Mining domain (and Code)	Comments
Low wall where a native and or pasture grass is not a final land use option given the slope profile / constraints	Final void (J)	Active mining area (open cut void) (5)	Type of vegetative growth to manage slope stability (e.g. Native grasses or pasture) to be noted in the 'vegetation community' column.
Tailings disposal in final void that is not completely filled	Final void (J)	Tailings storage facility (2)	
Final void created over a block-caving zone	Final void (J)	Underground mining area (6)	This assumes that no sustainable vegetation can be established and / or the area is an exclusion zone.

The spatial referencing of final voids in accordance with the above scenarios will ensure:

- that the appropriate suite of rehabilitation objectives and rehabilitation completion criteria are developed to address the unique range of risks that are specific to the final voids (e.g. high wall and low wall instability, exposed problematic geochemical materials, public safety, groundwater and surface water impacts etc.);
- the location of final voids is accurately depicted to determine compliance against the original development consent (e.g. size, depth, location and shape);
- a proponent is able to demonstrate that they have either minimised the size of the final void(s) and or areas draining to the final void as far as reasonably practicable / feasible in accordance with development consent conditions; and
- the beneficial reuse of voids is demonstrated where sustainable post mining land use outcomes can be established.

Final landform features theme

The final landform features theme is to be used to provide spatial information on specific features to be designed, installed or maintained as part of the final landform (i.e. landform features that are not included in the final land use theme). For instance, safety bunds, permanent bodies of water within final void, drainage networks, fencing, location of buried waste material etc. Not all mines will have specific final landform features and therefore this theme is non-mandatory.

Final landform contours theme

Polylines are required to be created for contours using either one metre or 5 metre intervals. We ask lease holders to assess and select the interval that will best provide information on the final landform for their mine. Generally, mines with small disturbance areas or low levels of topographical relief across the mining disturbance area will use contours with one metre intervals. Mines with large disturbance areas with relatively high levels of topographical relief will select contours with 5 metre intervals.

Forecast data themes (Year 1, 2 and 3)

Polygons should show areas of new disturbance or new rehabilitation for the 3 required values for the forecast area field as follows:

Forecast disturbance

This applies to forecast new areas of proposed disturbance (i.e. this polygon only covers new additional disturbance areas).

This can be any type of mining-related disturbance and is not required to be separated into each of the defined values provided for mining domain type in the disturbance theme. This is not a cumulative area. Do not include previous actual or forecast areas of disturbance depicted in previous forecast years of the current forward program submission.

Forecast land prepared for rehabilitation

This applies to forecast new areas of proposed land prepared for rehabilitation (i.e. this polygon only covers new additional forecast land prepared for rehabilitation). This area is to include a proposed change from ‘disturbance’ to ‘forecast land prepared for rehabilitation’.

The ‘forecast land preparation for rehabilitation’ theme applies to rehabilitation in the phases ‘decommissioning’, ‘landform establishment’, ‘growth medium development’ and ‘ecosystem and land use establishment’ that is **forecast** to commence on disturbed land. There is no need to take into account changes to the phase of rehabilitation that may occur in subsequent forecast years of the current forward program submission.

This theme corresponds to the reporting category ‘Total **new** area of land proposed for active rehabilitation during reporting period (P)’ for the key performance indicators described in Table 3 below.

This is not a cumulative area. Do not include previous actual or forecast areas of rehabilitation depicted in previous forecast years of the current forward program submission. These areas may cover forecast disturbance (e.g. when land is forecast to be disturbed and prepared for rehabilitation within the same year or forward program submission).

What if there is no forecast data (spatial data) to submit for a particular year(s) required as part of the Forward Program submission?

There may be instances depending on the type of mining operation where there will be no forecast spatial data in terms of disturbance and or rehabilitation for a part of or entire three year Forward Program period. Where this is the case, there is no requirement to submit spatial data for the Forward Program into the Mine rehabilitation portal.

To enable the Forward Program to be submitted via the Resources Regulator's Portal where no spatial data is submitted into the Mine rehabilitation portal, titleholders are required to send an email to nswresourcesregulator@service-now.com with the following information:

- Name of mine
- Forward Program number
- Details of which year(s) of the Forward Program will have no proposed disturbance and or rehabilitation data submitted into the Mine rehabilitation portal

Furthermore, the titleholder will be required to provide details in the Forward Program online form to justify why there are no disturbance or rehabilitation activities proposed. Once the titleholder (or authorised representative) has sent the email with the required information as outlined above, the Regulator will turn off the functionality within the Forward Program online form that prevents the form being submitted until the spatial data has been submitted via the Mine rehabilitation portal. Once the Regulator has turned off this functionality, the titleholder will be informed that the Forward Program online form can be submitted once all other mandatory sections have been completed.

Accuracy

Data should be compiled using the best possible means available at the mine site. Mine sites with surveying capabilities are expected to use these services in preparing the data.

When data is provided, data accuracy is required to be nominated. Two categories of accuracy are provided:

- 0-5 metre accuracy
- 5-20 metre accuracy

It is expected that an accuracy of 0 - 5 metres will apply to all data. Accuracy outside of this range will need to be justified in the 'additional info' field for each theme.

Lease holders should contact us if they have difficulty meeting these requirements.

Submission procedure

Mine rehabilitation theme data will need to be submitted via the Mine rehabilitation portal, which will be available on the portal - minerehabilitationportal.nsw.gov.au.

There are 2 methods for submission of data:

- file upload
- online tracing.

File upload

The file upload method is the main way titleholders will provide spatial data to us via the Mine rehabilitation portal. The prepared shapefile or file geodatabase is uploaded, validated and submitted via the upload portal workflow.

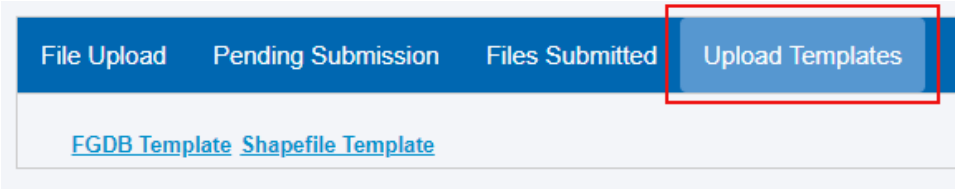
File geodatabase and shapefile templates

A file geodatabase template and a shapefile template that is aligned with the required schema and attribute fields has been created to help titleholders meet the data submission requirements. Using the file geodatabase or shapefile template, as a template, will ensure the validation and submission process is streamlined.

The file geodatabase and shapefile template can be downloaded in the upload templates tab within the upload portal minerehabilitationportal.nsw.gov.au (Figure 3). These templates (listed below) are also available on our website at www.resourcesregulator.nsw.gov.au

- FGDB template
- shapefile template
- layer file template for symbology

***Figure 3**: Templates can be found in the upload templates tab in the upload portal*



It is important to note that some attribute fields have specific domain list requirements and the data provided by lease holders must match what is provided in the domain list. These lists have already been populated into the file geodatabase template (drop-down lists). By using the file geodatabase template, and picking from the populated drop-down lists, the chance of validated errors will be significantly reduced.

File format

All populated datasets must be submitted as shapefiles or file geodatabase. The shapefile format consists of 3 or more files with the following file extensions:

- .shp – The main file that stores the feature geometry (required)
- .dbf – The dBASE table that stores the attribute information of features (required)
- .prj – The file that stores the coordinate system information (required)
- .shx – The index file that stores the index of the feature geometry (optional)
- .sbn and .sbx – The files that store the spatial index of the features (optional).

Projection

Data provided should be in a major and well-defined projection (e.g. Map Grid of Australia 1994 (MGA1994)). The Mine rehabilitation portal map viewer will reproject the data in Web Mercator based on the supplied projection file.

Upload procedure

Data in shapefile or file geodatabase format that matches the schema requirements for each theme can be uploaded to the Upload Portal. There are 3 steps in uploading data via this method:

1. **Upload:** Each theme must be uploaded separately in either zip, 7z or rar formats (shapefile or file geodatabase) in the File Upload tab.
2. **Validate:** Once uploaded, each theme must be validated in the Pending Submission tab by clicking on the Validate button for each data set. If validation fails, the validation report will provide details of where the data does not meet the specific schema requirements. Please refer to schema requirements in Tables 1-10 attached.

   The Mine rehabilitation portal validates the submitted data for the following requirements

- Section 1 validates your data against the nomenclature of the theme, spatial location and reference, checks for the valid data/files.
- Section 2 validates your data for the defined schema which is defined in the list of themes attachment to this document. This includes field name, length and type.
- Section 3 validates your data attributes (e.g. mandatory fields, domain lists).

3. **Submit:** Only data sets that are successfully validated in the 3 sections above will be able to be submitted to the Mine rehabilitation portal. If validation is successful, the data must then be submitted to the Mine rehabilitation portal using the 'Submit' button in the 'Pending Submission' tab. Submitted files will then move to the 'Files Submitted' tab and will be viewable in the map viewer.

Figure 4: Submission workflow

The Mine rehabilitation portal contains online guidance material ('How To' videos) covering file upload, validation and submission procedures.

Online tracing

Online tracing is available for lease holders of small mines who don't have access to spatial data/GIS software for their mine site. Online tracing is a tool that allows the creation of the required data directly into the Mine rehabilitation portal.

The online tracing functionality provides a workflow to draw the polygons, fill in the required attribute data and submit this information to the Mine rehabilitation portal. This can be used to create a compliant dataset for a mine, as well as editing existing datasets for annual submission requirements.

If previous submissions exist in the Mine rehabilitation portal, the tracing tool will create a copy of the last submitted dataset for each theme that can then be edited, and added to, as part of the tracing session. Once submitted, the updated dataset becomes the viewable dataset in the map viewer.

This methodology has a poor accuracy for data capture due to low resolution or historical capture dates of aerial imagery used in the portal. To ensure an appropriate level of accuracy for submissions using the online tracing tool, the collection of GPS data (.gpx files) or aerial imagery is recommended. The Mine

rehabilitation portal allows GPS waypoints (.gpx files) collected from the field to be uploaded and displayed in the map viewer to facilitate the drawing of polygons.

Our website provides a range of guidance material, including instructional videos, covering the submission procedure. You should consult us by emailing nswresourcesregulator@service-now.com before submitting using the online tracing functionality.

Aerial imagery upload

The Mine rehabilitation portal provides functionality for uploading aerial imagery (orthomosaics) to help improve the accuracy of data submitted using the tracing tool. It is recommended that online tracing submissions are digitised with an up-to-date aerial image as the basemap. This can be achieved using drone technology and appropriate software.

Aerial imagery must be in .jpeg2 or .ecw formats and uploaded in a zipped folder. Our website provides a range of guidance material, including instructional videos, covering the uploading of aerial imagery.

Data review

A review of the submitted data will be undertaken by us as part of the assessment process for the annual rehabilitation report and forward program, the rehabilitation management plan and the rehabilitation cost estimate. We may request a resubmission of data if the accuracy, completeness or any other issues are deemed unsatisfactory.

Rehabilitation key performance indicator report (KPI report)

Once the mine rehabilitation spatial theme data has been submitted via the Mine rehabilitation portal a Rehabilitation Key Performance Indicator Report (KPI Report) is automatically generated. These reports can then be viewed and downloaded by selecting ‘KPI Report’ from the main menu. They can also be generated manually by going to the ‘I want to’ menu in the Mine rehabilitation portal and selecting ‘Prepare KPI Report’. A data summary comprising the information outlined in Table 3 below will then be generated.

The purpose of the information is to provide a detailed breakdown of disturbance and rehabilitation progress on an annual basis and to develop rehabilitation targets and key performance indicators. It is a transparent way of:

- calculating the status of disturbance and rehabilitation at end of the annual reporting period

- calculating rehabilitation KPIs at end of the annual reporting period (required for the annual rehabilitation report)
- calculating the proportion of established rehabilitation for final land use classifications at the end of the reporting period (required for the annual rehabilitation report)
- communicating predicted cumulative disturbance and rehabilitation progression during the next three-year term (required for the forward program)
- communicating progressive rehabilitation KPIs during the next three-year term (required for the forward program)
- comparing actual areas and reasons for change, as per the annual rehabilitation report and forward program

The definitions for each reporting category are outlined in Table 3 below:

***Table 3**: Disturbance, rehabilitation and rehabilitation KPI reporting categories*

REPORTING CATEGORY	DEFINITION
Total disturbance footprint – surface disturbance (A1)	All areas within a mining lease that either have at some point in time or continue to pose a rehabilitation liability due to surface disturbance activities. The total disturbance footprint is the sum of the total active disturbance, decommissioning, landform establishment, growth medium development, ecosystem and land use establishment, ecosystem and land use development and rehabilitation completion (see definitions below). Underground mining operations should not include the footprint of underground mining areas/subsidence management areas in the total disturbance footprint.
Total active disturbance (B)	Includes all surface disturbance areas that are active and on which rehabilitation has not commenced. It includes mining domains: infrastructure areas, tailings storage facilities, water management areas, overburden emplacement areas, active mining areas (open cut void), beneficiation facilities. It excludes the mining domain: underground mining areas (SMP).

REPORTING CATEGORY	DEFINITION
	It excludes disturbance areas where rehabilitation has commenced. An exception is temporary stabilised areas (e.g. areas sown with temporary cover crops for dust mitigation and temporary rehabilitation).
Rehabilitation – land preparation (C)	Includes the sum of all disturbed land within a mining lease that has commenced any, or all, of the following phases of rehabilitation: ■ decommissioning ■ landform establishment ■ growth media development
Ecosystem and land use establishment (D)	Includes the area that was seeded/planted with the target vegetation species for the intended final land use. However, vegetation has not matured to a stage where it can be demonstrated that it will be sustainable for the long-term and/or require only a maintenance regime consistent with target reference/analogue sites. This phase does not apply to infrastructure areas that are being retained as part of final land use for the site. Typically, rehabilitation areas would be in this phase for at least 2 years (and usually more) before rehabilitation can be classified as being in the ecosystem and land use development phase.
Ecosystem and land use development (E)	Rehabilitation has matured to a level where target revegetation outcomes are on a trajectory towards meeting the approved rehabilitation objectives and rehabilitation completion criteria (as verified by monitoring). This phase includes infrastructure areas to be retained for an approved final land use, following completion of all necessary measures to render the infrastructure fit-for-this purpose (for example structural integrity).
Rehabilitation completion (F)	The NSW Resources Regulator has determined in writing that the mining area has achieved the approved rehabilitation objectives and approved rehabilitation completion criteria and final landform and rehabilitation plan following the submission of the relevant application by the lease holder

REPORTING CATEGORY	DEFINITION
New active disturbance area (G)	The area of any new active disturbance that has been created during the annual reporting period (definition B in this table).
New rehabilitation commenced during the annual reporting period (H)	The sum of any new rehabilitation commenced in the annual reporting period. These areas may be in the rehabilitation land preparation phase or the ecosystem and land use establishment phase (definitions C and D in this table).
Established rehabilitation (I)	The total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E and F in this table).
Annual rehabilitation to disturbance ratio (J)	The rehabilitation to disturbance ratio (H/G) indicates how many hectares of new rehabilitation are undertaken for each hectare of land disturbed during the year. A ratio of 1:1 indicates that the area of new rehabilitation and disturbance in that year are the same.
% Rehabilitated land to total mine footprint (K)	The proportion of the total mine footprint (area of land that has been disturbed by past or present surface disturbance activities) that has established rehabilitation (I/A1 x 100). For open cut mining, the proportion of the total mine footprint verified to be 'established rehabilitation' should substantially increase as an operation progresses towards mine closure.
Established rehabilitation for agricultural final land uses (L)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E and F in this table) that has been returned to an agricultural final land use.
Established rehabilitation for native ecosystem final land uses (M)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or rehabilitation completion phase (definitions E and F in this table) that has been returned to native ecosystem final land use.

REPORTING CATEGORY	DEFINITION
Established rehabilitation for other/non-vegetated final land uses (N)	The percentage of total area of land that is verified to be within either the ecosystem and land use development phase or the rehabilitation completion phase (definitions E and F in this Table) that has been returned to other/ non-vegetated final land use.
Total new active disturbance area during reporting period (O)	The area of any **new** active disturbance that will be created during the next three years (definition B in this table).
Total **new** area of land proposed for active rehabilitation during reporting period (P)	The area of any **new** rehabilitation to be commenced in the next three years. These areas may be in phases 'rehabilitation – land preparation' and or the 'ecosystem and land use establishment' (definition C and D in this table).
Annual rehabilitation to disturbance ratio (Q)	The rehabilitation to disturbance ratio (P:O) indicates how many hectares of new rehabilitation are undertaken for each hectare or land disturbed during the 3 years. A ratio of 1:1 indicates that the area of new rehabilitation and disturbance in the period are the same.

Access to supplied data

The Mine rehabilitation portal's purpose is to collect spatial data relevant to mine rehabilitation and closure from lease holders or their authorised representatives. The data submitted to the portal will be available for viewing within the map viewer by registered users of that mine.

The map viewer has reporting tools to help with the reporting requirements of the mining lease. These tools include the KPI Report and Print Plan functions.

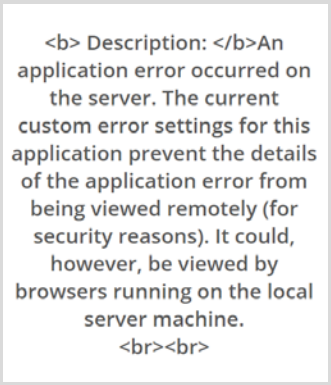
We will make the submitted data available on the NSW Government's Sharing and Enabling Environmental Data (SEED) portal for viewing purposes by the community. The sharing of these spatial themes is considered important in ensuring the transparency of regulating progressive mine rehabilitation in NSW.

Users are required to check any licensing information and copyright for each piece of material submitted to ensure the permission extends to our use and potential distribution to third parties described above.

Troubleshooting

All support requests relating to the Mine rehabilitation portal should be addressed to nswresourcesregulator@service-now.com

ISSUE	POTENTIAL RESOLUTION
I can't login to the portal.	Confirm you are using the correct username. You created this username during account creation. You can confirm your username by emailing nswresourcesregulator@service-now.com
When I login to the Mine rehabilitation portal I get an error message and it won't load up.	Clear cache or restart browser You should always clear your cache or restart browser if having issues logging into the portal. Leaving the browser open will cause a timeout for the Mine rehabilitation portal login (set at 10 hours) and will result in an error message during login. Updates to the portal can also cause caching issues.

ISSUE	POTENTIAL RESOLUTION
	
Validation report not generated.	If a validation report is not created, you can try to re-upload and validate the file. On some occasions the validation report may not generate as required if there are network interruptions. Otherwise contact Resources Regulator via email nswresourcesregulator@service-now.com

Glossary

TERM	DEFINITION
Active mining phase of rehabilitation	In the context of rehabilitation, the active mining phase of rehabilitation constitutes the rehabilitation activities undertaken during mining operations such as land clearing, salvaging and managing soil resources, salvaging habitat resources, and native seed collection. This phase also includes management actions taken during operations to manage risks to rehabilitation and enhance rehabilitation outcomes such as selective handling of waste rock and management of tailings emplacements.
Annual rehabilitation report	As outlined in the Mining Regulation 2016.
Attribute	Means a database field attached to a feature object in a theme used to describe spatial data (also known as 'object data'). Examples include 'MineN' (Mine Name) or 'RehabPha' (Rehabilitation phase).
Decommissioning	The process of removing mining infrastructure and removing contaminants and hazardous materials.
Decommissioning phase of rehabilitation	Activities associated with the removal of mining infrastructure and removal and/or remediation of contaminants and hazardous materials. In the context of the rehabilitation management plan (for large mines only) this phase of rehabilitation may also include studies and assessments associated with decommissioning and demolition of infrastructure or works carried out to make safe or 'fit-for-purpose' built infrastructure to be retained for future use(s) following lease relinquishment.
Department	Department of Regional NSW.
Disturbance	See surface disturbance.
Disturbance area	An area that has been disturbed and requires rehabilitation. This may include areas such as exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped), and areas requiring rehabilitation that are temporarily stabilised (e.g. managed to minimise dust generation and/or erosion).

TERM	DEFINITION
Domain	An area/s of the land that was disturbed by mining and has a specific operational use (mining domain) or specific final land use (final land use domain). Land within a domain typically has similar geochemical and/or geophysical characteristics and therefore requires specific rehabilitation activities to achieve the associated final land use.
Domain list	A predefined list of attributes. Values in a field with a domain list must match the list records exactly to ensure successful validation of data (e.g. spelling, caps).
Ecosystem and land use development	This phase of rehabilitation consists of the activities to manage maturing rehabilitation areas on a trajectory to achieving the approved or, if not yet approved, the proposed: ■ rehabilitation objectives, and ■ rehabilitation completion criteria, and ■ for large mines – final landform and rehabilitation plan. For vegetated land uses, this phase may include processes to develop characteristics of functional self-sustaining ecosystems, such as nutrient recycling, vegetation flowering and reproduction, and increasing habitat complexity, and development of a productive, self-sustaining soil profile. This phase of rehabilitation may include specific vegetation management strategies and maintenance such as tree thinning, supplementary plantings and weed management.
Ecosystem and land use establishment	This phase of rehabilitation consists of the processes to establish the approved final land use following construction of the final landform (as per the approved final landform and rehabilitation plan for large mines). For vegetated land uses, this rehabilitation phase includes establishing the desired vegetation community and implementing land management activities such as weed control. This phase of rehabilitation may also include habitat augmentation such as installing nest boxes.
Exploration	Has the same meaning as that term under the *State Environmental Planning Policy (Resources and Energy) 2021*.
Final landform and rehabilitation plan	As defined in the Mining Regulation 2016.
Final land use	As defined in the Mining Regulation 2016.

TERM	DEFINITION
Final land use domain	A land management unit with a final land use. A mining lease may have one final land use (e.g. returning the entire mining lease to native vegetation) or several final land use units (e.g. a mix of pasture areas and native ecosystems). Each final land use unit represents a separate final land use domain.
Final void	A final void is demarcated by the extent of an area that does not free drain to the surrounding surface environment. In other words the void's planar extent is defined by the lowest point of the voids crest, often referred to as the spill point level (or spill level). The spill level is the elevation in the void, which if filled with water, water would spill into the surrounding landscape. A final void typically comprises the following: • an area whereby material was extracted as a result of mining and a void remains after mining is complete; and or • highwalls; and or • low walls; and or • ramps.
Form and way	Means the form and way approved by the Secretary. Approved form and way documents are available on the Department's website.
Forward program	As defined in the Mining Regulation 2016.
Growth medium development	This phase of rehabilitation consists of activities required to establish the physical, chemical and biological components of the substrate required to establish the desired vegetation community (including short-lived pioneer species) to ensure achievement of the approved or, if not yet approved, the proposed: ■ rehabilitation objectives, and ■ rehabilitation completion criteria, and ■ for large mines – final landform and rehabilitation plan. This phase may include spreading the prepared landform with topsoil and/or subsoil and/or soil substitutes, applying soil ameliorants to enhance the physical, chemical and biological characteristics of the growth media, and actions to minimise loss of growth media due to erosion.
Land	As defined in the *Mining Act 1992.*

TERM	DEFINITION
Landform establishment	This phase of rehabilitation consists of the processes and activities required to construct the approved final landform (as per the development consent and, for large mines, the approved final landform and rehabilitation plan). In addition to profiling the surface of rehabilitation areas to the approved final landform profile this phase may include works to construct surface water drainage features, encapsulate problematic materials such as tailings, and prepare a substrate with the desired physical and chemical characteristics (that is, rock raking or ameliorating sodic materials).
Large mine	As defined in the Mining Regulation 2016.
Lease holder	The holder of a mining lease.
Life of mine	The timeframe of how long a mine is approved to mine, from commencement to closure.
Mine rehabilitation portal	Means the NSW Resources Regulator's online portal that leaseholders must use (via a registered account) to: ■ upload rehabilitation geographical information system (GIS) spatial data ■ develop rehabilitation GIS spatial data (using online tracing functions) ■ generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities. Data submitted to the Mine rehabilitation portal is collated in a centralised geodatabase for use by the NSW Resources Regulator to regulate rehabilitation performance of leaseholders.
Mining area	As defined in the *Mining Act 1992*.
Mining domain	A land management unit with a discrete operational function (for example, overburden emplacement), and therefore similar geophysical characteristics, that will require specific rehabilitation treatments to achieve the final land use(s).
Mining lease	As defined in the *Mining Act 1992*.
Overburden	Material overlying coal or a mineral deposit.

TERM	DEFINITION
Phases of rehabilitation	The stages and sequences of actions required to rehabilitate disturbed land to achieve the final land use. The phases of rehabilitation are: ■ active mining ■ decommissioning ■ landform establishment ■ growth medium development ■ ecosystem and land use establishment ■ ecosystem and land use development ■ rehabilitation completion (sign-off).
Polygon	An area defined on a map by a closed shape.
Progressive rehabilitation	The progress of rehabilitation towards achieving the approved or, if not yet approved, the proposed: ■ rehabilitation objectives, and ■ rehabilitation completion criteria, and ■ for large mines – final landform and rehabilitation plan. This may be described in terms of domains, phases, performance indicators and rehabilitation completion criteria.
Rehabilitation	As defined in the *Mining Act 1992*.
Rehabilitation completion	The final phase of rehabilitation when a rehabilitation area has achieved the final land use for the mining area: ■ as stated in the approved rehabilitation objectives and the approved rehabilitation completion criteria, and ■ for large mines – as spatially depicted in the approved final landform and rehabilitation plan. Rehabilitation areas may be classified as complete when the NSW Resources Regulator has determined in writing that rehabilitation has achieved the final land use following submission of the relevant application by the lease holder.
Rehabilitation completion criteria	Rehabilitation completion criteria set out the criteria the achievement of which will demonstrate the achievement of the rehabilitation objectives.

TERM	DEFINITION
Rehabilitation cost estimate	As defined in the Mining Regulation 2016.
Rehabilitation – land preparation	A reporting category (refer Table 3) that includes the the sum of all disturbed land within a mining lease that has commenced any, or all, of the following phases of rehabilitation: ■ decommissioning ■ landform establishment ■ growth media development
Rehabilitation management plan	As defined in the Mining Regulation 2016.
Rehabilitation objectives	Means the rehabilitation objectives required to achieve the final land use for the mining area.
Rehabilitation outcomes	Means the final land use for the mining area as stated in the approved rehabilitation objectives, the approved rehabilitation completion criteria and the approved final landform and rehabilitation plan.
Risk	The effect of uncertainty on objectives. It is measured in terms of consequences and likelihood (AS/NZS ISO 31000:2018).
Schema	Defines the data structure, field names and data formats required for a particular theme (e.g. text or short integer).
Secretary	The Secretary of the Department.
Small mine	As defined in the Mining Regulation 2016.
Spatial reference	The spatial reference is an alphanumeric code used for linking objectives/completion criteria with the final land use polygons. See explanatory note under the schema requirements heading for more details.
Surface disturbance	Includes activities that disturb the surface of the mining area, including mining operations, ancillary mining activities and exploration.
Tailings	A combination of the fine-grained (typically silt-sized, in the range from 0.001 to 0.6 mm) solid materials remaining after the recoverable metals and

TERM	DEFINITION
	minerals have been extracted from mined ore, together with the water used in the recovery process[1].
Themes	Refers to a type of information/data stored on a GIS single layer (e.g. rehabilitation). Each theme has a specific set of required attribute fields.
Water management area	Includes creek realignments, constructed wetlands, significant landform drainage features, etc – but does not include a water storage area or any anticipated permanent water body in a final void.
Water storage area	Includes dams retained for the final land use – but does not include any anticipated permanent body of water in a final void.

[1] *Tailings Management: Leading Practice Sustainable Development Program for the Mining Industry*, Commonwealth of Australia (2016).

Department guidance

- Form and way: Rehabilitation objectives and rehabilitation completion criteria for small mines
- Form and way: Rehabilitation objectives, rehabilitation completion criteria and final landform and rehabilitation plan for large mines
- Form and way: Rehabilitation management plan for large mines
- Form and way: Annual rehabilitation report and forward program for small mines
- Form and way: Annual rehabilitation report and forward program for large mines
- Guideline: Rehabilitation risk assessment
- Guideline: Rehabilitation records
- Guideline: Rehabilitation controls
- Guideline: Mine rehabilitation portal
- Guideline: Rehabilitation objectives and rehabilitation completion criteria
- Guideline: Achieving rehabilitation completion (sign-off)

The above resources are located on our website.

Attached – List of themes: Tables 1-10

Table 1: Rehabilitation (polygon data type)

Overview: The rehabilitation theme aims to capture the rehabilitation information on a mine site. This information is critical in understanding how rehabilitation is progressing over time. Rehabilitation polygons should reflect discreet rehabilitation programs (e.g. rehabilitation completed in each year up until the reporting year submission).

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
MineN	Mine Name	Text	Text	250	Yes	Mine name should be consistent with the registered mine name from the list provided in the portal.	Select the mine name from the list provided in the portal. The mine name entered will have to correlate exactly with the mine name listed in the Mine rehabilitation portal registration page.
SiteN	Site Name	Text	Free Text	50	No	Free text.	This is a non-mandatory field that is useful for large mining operations with multiple sites to provide a consistent naming protocol for each site e.g. 'South Pit". The name attributed to a site must be

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							identical for future reporting and comparison purposes.
MineDomN	Mining Domain Name	Text	Free Text	50	Yes	Free text.	Provide a name for the mining domain. For larger operations, selected name should contain reference site name (if used) and local name given to the area e.g. 'South Pit Chitter Dump' or 'REA Stage 3'.
RehabPha	Rehabilitation Phase	Text	Text	55	Yes	Must be one of the following: ■ decommissioning ■ landform establishment ■ growth media development ■ ecosystem and land use establishment ■ ecosystem and land use development ■ rehabilitation completion	Select the phase from the domain list that the rehabilitation is in at the time of data submission/last survey. You will not enter any other value apart from the mentioned values under the 'Required Values' (domain list) as the application will discard any record not having any one of the mentioned values.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
YrLndEs	Year Landform Established	Short Integer	Number without decimal	5	Yes	Enter reporting year of landform establishment	Reporting Year final landform was achieved e.g. 2004. Include details in endorsement field for any uncertainties or for data over multiple years. In event of multiple years, enter most recent year only. If decommissioning phase is selected, please specify year decommissioning was commenced and update with year landform was established when this phase of rehabilitation has commenced.
LndMat	Landform Material	Text	Text	50	Yes	Must be one of the following: ■ coarse reject/chitter/coalwash ■ overburden/waste rock ■ tailings ■ natural ground ■ other	Select the value from the domain list that describes the material that the landform is created from. If not known select 'other'. If 'other' further details can be provided in the 'Additional Info' field.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							You will not enter any other value apart from the mentioned values under the 'Required Values' (domain list) as the application will discard any record not having any one of the mentioned values.
SbSoilD	Subsoil Depth (m)	Double	Numbers with decimals	38	No	Enter the depth in metres	This is a non-mandatory field useful for recording subsoil placement depth. Enter the depth of the sub soil in metres (e.g. 1.2).
TpSoilD	Topsoil Depth (m)	Double	Numbers with decimals	38	No	Enter the depth in metres	This is a non-mandatory field useful for recording topsoil placement depth. Enter the depth of the topsoil in metres (e.g. 0.5).
TpSoilO	Topsoil Origin	Text	Text	50	Yes	Must be one of the following ■ direct return ■ stockpile ■ other	Select the value that describes the origin of the topsoil. direct return – straight from newly disturbed areas.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							stockpile – material stockpiled > 1 month. If not known select 'other'. If 'other' further details can be provided in the 'Additional Info' field. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values.
RehabPrp	Rehabilitation Preparation	Text	Free Text	50	No	Free text.	This is a non-mandatory field useful for providing a summary of preparation undertaken prior to seeding. For example, 'Deep Ripped to 1m'.
Ameliotn	Amelioration	Text	Free Text	50	No	Free text.	This is a non-mandatory field useful for recording amelioration undertaken. For example, 'Gypsum 5t/Hectare'.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
MtdVegEs	Method of Vegetation Establishment	Text	Text	50	Yes	Must be one of the following ■ seeding – hand cast ■ seeding – mechanical cast/drill ■ tubestock – hardened ■ tubestock – normal ■ combination – seeding and tubestock ■ other	Select the value that describes the method of vegetation establishment. If not known select 'other'. If 'other' further details can be provided in the 'Additional Info' field. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values.
YrVegEs	Year Vegetation Established	Short Integer	Number without decimal	5	Yes	Enter the year value e.g. 2004.	Enter the reporting year when Vegetation was established e.g. seeding, planting of tubestock.
Signstat	Sign-off Status	Text	Text	50	Yes	■ Not applicable ■ Sign-off requested ■ Sign-off complete	This field is used to track rehabilitation areas undergoing or completed rehabilitation sign-off. You must enter 'Not applicable' if no sign-off has been requested.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							You must not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values.
Signref	Sign-off Reference	Text	Text	50	No	Free text.	
AddInfo	Additional Info	Text	Free Text	250	No	Free text.	This is a non-mandatory field that allows for any additional information to be provided related to the feature.
Source	Source	Text	Text	50	Yes	Must be one of the following ■ mine survey ■ other survey ■ digitised ■ coordinate entry ■ department records ■ planning approval	This field is for entering the source of this data. Data recorded using online tracing is to be labelled 'Digitised'. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
						■ other	any one of the mentioned values.
ChartDt	Chart Date	Date	Date	NA	Yes	Date format should be as follows DD/MM/YYYY	Enter the date value when this data was charted/created.
Chartor	Chartor	Text	Free Text	50	Yes	Enter the name of the author.	Enter the name of the person (e.g. author) who created this data.
Endorse	Endorse	Feature status	Free text	250	No	Free text.	This is a non-mandatory field which allows author to highlight areas of uncertainty that may not meet the standards required.
Accuracy	Accuracy	Text	Text	50	Yes	Must be one of the following ■ 0-5m ■ 5-20m	Defines accuracy level of data. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Include details in endorsement field for any uncertainties for accuracy.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
ThemeN	Theme Name	Text	Text	50	No	Rehabilitation	This is a non-mandatory field that allows themes to be categorised for user cataloging purposes. Must match standard theme names.
SubmsnN	Submission Name	Text	Free Text	50	No	Free text.	This is a non-mandatory field which may be useful for user cataloging purposes.
FileN	File Name	Text	Free Text	50	No	Free text.	This is a non-mandatory field which may be useful for user cataloging purposes.
Provider	Provider	Text	Free text	50	No	Provider of the surveying information.	This is a non-mandatory field which allows author to identify the source of the data for cataloging purposes. Data may be sourced from various providers across a mine site e.g. Consultant ABC.

Table 2: Disturbance (polygon data type)

Overview: The disturbance theme captures spatial and temporal information about disturbance across the mine site. The disturbance theme should reflect the life of mine to date e.g. all disturbance areas including areas that have been rehabilitated. Do not remove disturbance polygons if rehabilitation has occurred in that area.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
MineN	Mine Name	Text	Text	250	Yes	Mine name should be consistent with the registered mine name from the list provided in the portal.	Select the mine name from the list provided in the portal. The mine name entered will have to correlate exactly with the mine name listed in the Mine rehabilitation portal registration page.
SiteN	Site Name	Text	Text	50	No	Free text.	This is a non-mandatory field that is useful for large mining operations with multiple sites to provide a consistent naming protocol for each site (e.g. 'South Pit'). The name attributed to a site must be identical for future reporting and comparison purposes.
MineDomN	Mining Domain Name	Text	Free Text	50	Yes	Free text.	Select a name for the mining domain. For larger operations, selected name should contain reference site name (if used) and

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							local name given to the area (e.g. 'South Pit Chitter Dump' or 'REA Stage 3').
MineDomT	Mining Domain Type	Text	Text	50	Yes	Must be one of the following: ■ infrastructure area ■ tailings storage facility ■ water management area ■ overburden emplacement area ■ active mining area (open cut void) ■ underground mining area (SMP) ■ beneficiation facility ■ other	Enter the domain type from the list provided. Disturbance polygons must show cumulative mine disturbance (e.g. areas that have been disturbed and subsequently rehabilitated are to remain included in the disturbance theme layer). You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Please refer to *Form and way*: *Rehabilitation management plan for large mines* for further guidance on the application of mining domain types.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
DistYr	Disturbance Year	Short Integer	Numbers without decimals	5	Yes	Enter the year value.	Enter the year value for which the original disturbance was undertaken. Include details in endorsement field for any uncertainties or for data over multiple years. In event of multiple years, enter most recent year only.
AddInfo	Additional Info	Text	Free Text	250	No	Free text. Describe any additional info as required	This is a non-mandatory field which allows for any additional information to be provided related to the feature.
Source	Source	Text	Text	50	Yes	Must be one of the following: ■ mine survey ■ other survey ■ digitised ■ coordinate entry ■ department records ■ planning approval ■ other	This field is for entering the source of this data. Data recorded using online tracing is to be labelled 'Digitised'. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. 'Other' should only be used if the domain type does not fall within the

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							list provided. If 'Other' is used, provide details in Additional Information field
ChartDt	Chart Date	Date	Date	NA	Yes	Date format should be as follows DD/MM/YYYY	Enter the date value when this data was charted/created.
Chartor	Chartor	Text	Free Text	50	Yes	Enter the name of the author.	Enter the name of the person (e.g. author) who created this data.
Endorse	Endorse	Feature status	Free text	250	No	Free text.	This is a non-mandatory field which allows author to highlight areas of uncertainty that may not meet the standards required.
Accuracy	Accuracy	Text	Text	50	Yes	Must be one of the following ■ 0-5 m ■ 5-20 m	Defines accuracy level of data. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Include details in endorsement field for any uncertainties for accuracy.
ThemeN	Theme Name	Text	Text	50	No	Disturbance	This is a non-mandatory field that allows themes to be categorised for

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							user cataloging purposes. Must match standard theme names.
SubmsnN	Submission Name	Text	Free text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
FileN	File Name	Text	Free text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
Provider	Provider	Text	Free text	50	No	Provider of the surveying information.	This is a non-mandatory field that allows author to identify the source of the data for cataloging purposes. Data may be sourced from various providers across a mine site (e.g. Consultant ABC).

Table 3: Final land use (polygon data type)

Overview: The final land use theme is used to provide spatial information for the planned final land use for all disturbance areas following mine closure. This theme needs to cover the entire footprint of the mine including past and future disturbance areas. This theme may comprise multiple final land use polygons to spatially represent the location of each specific final land use defined by a development consent(s) and/or rehabilitation objectives and rehabilitation completion criteria approved under Clause 9 of Schedule 8A of the Mining Regulation 2016.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
MineN	Mine Name	Text	Text	250	Yes	Mine name should be consistent with the registered mine name from the list provided in the portal.	Select the mine name from the list provided in the portal. The mine name entered will have to correlate exactly with the mine name listed in the Mine rehabilitation portal registration page.
SiteN	Site Name	Text	Text	50	No	Free text.	This is a non-mandatory field that is useful for large mining operations with multiple sites. Provide a consistent naming protocol for each site (e.g. 'South Pit'). The name attributed to a site must be identical for future reporting and comparison purposes.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
FnlndDom	Final Landuse Domain	Text	Text	50	Yes	Must be one of the following: ■ native ecosystem ■ agricultural – grazing ■ agricultural – cropping ■ rehabilitation biodiversity offset area ■ industrial ■ water management areas ■ water storage (excluding final void) ■ heritage area ■ infrastructure ■ final void ■ other	Enter the Final Land Use domain of your mine. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Please refer to the glossary and *Form and way: Rehabilitation management plan for large mines* for further guidance on the application of Final Land Use domain types. 'Other' should only be used if the domain type does not fall within the list provided. If 'Other' is used, provide details in Additional Information field
MineDomT	Mining Domain Type	Text	Text	50	Yes	Must be one of the following: ■ infrastructure area ■ tailings storage facility	Enter the domain type from the list provided.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
						■ water management area ■ overburden emplacement area ■ active mining area (open cut void) ■ underground mining area (smp) ■ beneficiation facility ■ other	Disturbance polygons must show cumulative mine disturbance (e.g. areas that have been disturbed and subsequently rehabilitated are to remain included in the disturbance theme layer). You must not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Please refer to *Form and way: Rehabilitation management plan for large mines* for further guidance on the application of mining domain types. 'Other' should only be used if the domain type does not fall within the list provided. If 'Other' is used, provide details in Additional Information field

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
Spatref	Spatial Reference	Text	Text	50	Yes	Text that must use unique alpha numeric code. See explanatory note under the schema requirements heading for more details.	Each final land use polygon must have a spatial reference that is an alpha numeric code. This is a unique code that will be used to link the rehabilitation objectives and rehabilitation completion criteria to the spatial data being submitted via the portal.
VegCom	Vegetation Community	Text	Free Text	50	No	Free text. Enter Vegetation Community Name	This is a non-mandatory field that describes the Vegetation Community that is trying to be achieved. This is most relevant to the 'Native Ecosystem' and 'Rehabilitation Biodiversity Offset Area' final land use domains that may need to be achieved as a final land use(s) for the mine. Where there are multiple vegetation community types to be achieved as a final land use, each community type represents a different final land use that is to be delineated as a separate 'Final Land Use'

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							polygon. To ensure that each 'Final Land Use' polygon can be spatially identified, the name of the vegetation community name is required to be entered.
Source	Source	Text	Text	50	Yes	Must be one of the following: ■ mine survey ■ other survey ■ digitised ■ coordinate entry ■ department records ■ planning approval ■ other	This field is for entering the source of this data. Data recorded using online tracing is to be labels 'digitised'. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values.
ChartDt	Chart Date	Date	Date	NA	Yes	Date format should be as follows DD/MM/YYYY	Enter the date value when this data was charted/created.
Chartor	Chartor	Text	Free Text	50	Yes	Free text. Enter the name of the author.	Enter the name of the person (e.g. author) who created this data.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
AddInfo	Additional Info	Text	Free Text	250	No	Free text. Describe any additional info as required	This field allows for any additional information to be provided related to the feature. Where there are multiple final land use types of the same final land use categories to be achieved following rehabilitation, each final land use is to be delineated as a separate 'Final Land Use' polygon to ensure it can be spatially identified.
Endorse	Endorse	Feature status	Free text	250	No	Free text.	This is a non-mandatory field which allows author to highlight areas of uncertainty that may not meet the standards required.
Accuracy	Accuracy	Text	Text	50	Yes	Must be one of the following: ■ 0-5 m ■ 5-20 m	Defines accuracy level of data. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							any one of the mentioned values. Include details in endorsement field for any uncertainties for accuracy.
ThemeN	Theme Name	Text	Text	50	No	Final land use	This is a non-mandatory field which allows themes to be categorised for user cataloging purposes. Must match standard theme names.
SubmsnN	Submission Name	Text	Free text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
FileN	File Name	Text	Free text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
Provider	Provider	Text	Free text	50	No	Free text. Provider of the surveying information.	This is a non-mandatory field that allows author to identify the source of the data for cataloging purposes. Data may be sourced from various providers across a mine site e.g. Consultant ABC.

Table 4: Final landform features (polygon data type) – non-mandatory

Overview: The final landform features theme is used to provide spatial information on specific features to be designed, installed or maintained as part of the final landform. For instance: safety bunds, permanent water body within final void, drainage networks, fencing, buried waste materials etc. This may not be applicable to all mines.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/ DOMAIN LISTS	DESCRIPTION
MineN	Mine Name	Text	Text	250	Yes	Mine name should be consistent with the registered mine name from the list provided in the portal.	Select the mine name from the list provided in the portal. The mine name entered will have to correlate exactly with the mine name listed in the Mine rehabilitation portal registration page.
SiteN	Site Name	Text	Text	50	No	Free text.	This is a non-mandatory field that is useful for large mining operations with multiple sites to provide a consistent naming protocol for each site (e.g. 'South Pit'). The name attributed to the site must be identical for future reporting and comparison purposes.
FnLfFeat	Final Landform Feature	Text	Text	50	Yes	Free text. Enter description of Final landform Feature. Free text. e.g. safety bund	A short description of the final landform feature is required. This field is useful for providing the location of final landform features that are not located in the final land use theme. For example, 'safety bund' or

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/ DOMAIN LISTS	DESCRIPTION
							'permanent water body within final void'. Please refer to *Form and way: Rehabilitation management plan for large mines* for further guidance on where this information should be provided.
Source	Source	Text	Text	50	Yes	Must be one of the following: ■ mine survey ■ other survey ■ digitised ■ coordinate entry ■ department records ■ planning approval ■ other	This field is for entering the source of this data. Data recorded using online tracing is to be labelled 'Digitised'. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values.
ChartDt	Chart Date	Date	Date	NA	Yes	Date format should be as follows DD/MM/YYYY	Enter the date value when this data was charted/created.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/ DOMAIN LISTS	DESCRIPTION
Chartor	Chartor	Text	Free Text	50	Yes	Enter the name of the author.	Enter the name of the person (e.g. author) who created this data.
AddInfo	Additional Info	Text	Text	250	No	Free text with additional information	This field allows for any additional information to be provided related to the feature.
Endorse	Endorse	Feature status	Free text	250	No	Free text.	This is a non-mandatory field which allows author to highlight areas of uncertainty that may not meet the standards required.
Accuracy	Accuracy	Text	Text	50	Yes	Must be one of the following: ■ 0-5 m ■ 5-20 m	Defines accuracy level of data. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Include details in endorsement field for any uncertainties for accuracy.
ThemeN	Theme Name	Text	Text	50	No	Final (Post Mining) Landuse	This is a non-mandatory field which allows themes to be categorised for user cataloging purposes. Must match standard theme names.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/ DOMAIN LISTS	DESCRIPTION
SubmsnN	Submission Name	Text	Free text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
FileN	File Name	Text	Free text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
Provider	Provider	Text	Free text	50	No	Free text. Provider of the surveying information.	This is a non-mandatory field that allows author to identify the source of the data for cataloging purposes. Data may be sourced from various providers across a mine site (e.g. Consultant ABC).

Table 5: Current landform contours (polyline data type)

Overview: The Current Landform Contour theme provides spatial information for the current mine surface topography. Contour values are to be at 1 metre intervals.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
MineN	Mine Name	Text	Text	250	Yes	Choose mine name from the list provided in the portal.	Select the mine name from the list provided in the portal. The mine name entered will have to correlate exactly with the mine name listed in the Mine rehabilitation portal registration page.
SiteN	Site Name	Text	Text	50	No	Free text.	This is a non-mandatory field that is useful for large mining operations with multiple sites to provide a consistent naming protocol for each site (e.g. 'South Pit'). The name attributed to the site must be identical for future reporting and comparison purposes.
CntrHt	Contour Height (m AHD)	Double	Double	10	Yes	Australian Height Datum, AHD in metres with one decimal.	Height in metres above/below mean sea level. Contour values should be at 1 or 5 metre

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							intervals. May include negative values.
Source	Source	Text	Text	50	Yes	Must be one of the following: ■ mine survey ■ other survey ■ digitised ■ coordinate entry ■ department records ■ planning approval ■ other	This field is for entering the source of this data. Data recorded using online tracing is to be labelled 'Digitised'. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values.
ChartDt	Chart Date	Date	Date	NA	Yes	Date format should be as follows DD/MM/YYYY	Enter the date value when this data was charted/created.
Chartor	Chartor	Text	Free Text	50	Yes	Free text. Enter the name of the author.	Enter the name of the person (e.g. author) who created this data.
AddInfo	Additional Info	Text	Free text	250	No	Free text. Describe any additional info as required	This is a non-mandatory field that allows for any additional

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							information to be provided related to the feature.
Endorse	Endorse	Feature status	Free text	250	No	Free text.	This is a non-mandatory field that allows author to highlight areas of uncertainty that may not meet the standards required.
Accuracy	Accuracy	Text	Text	50	Yes	Must be one of the following: ■ 0-5 m ■ 5-20 m	Defines accuracy level of data. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Include details in endorsement field for any uncertainties for accuracy.
ThemeN	Theme Name	Text	Text	50	No	Current Landform Contours	This is a non-mandatory field that allows themes to be categorised for user cataloging purposes. Must match standard theme names.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
SubmsnN	Submission Name	Text	Free text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
FileN	File Name	Text	Free text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes
Provider	Provider	Text	Free text	50	No	Free text. Provider of the surveying information.	This is a non-mandatory field that allows author to identify the source of the data for cataloging purposes. Data may be sourced from various providers across a mine site (e.g. Consultant ABC).

Table 6: Final landform contours (polyline data type)

Overview: The final landform contours theme provides spatial information for the planned final landform topography. Contour values are to be at one metre intervals.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
MineN	Mine Name	Text	Text	250	Yes	Choose mine name from the list provided in the portal.	Select the mine name from the list provided in the portal. The mine name entered will have to correlate exactly with the mine name listed in the Mine rehabilitation portal registration page.
SiteN	Site Name	Text	Text	50	No	Free text.	This is a non-mandatory field that is useful for large mining operations with multiple sites to provide a consistent naming protocol for each site (e.g. 'South Pit'). The name attributed to a site must be identical for future reporting and comparison purposes.
CntrHt	Contour Height (m AHD)	Double	Double	10	Yes	Australian Height Datum, AHD in metres with one decimal.	Height in metres above/below mean sea level. Contour values should be at one of 5 metre intervals. May include negative values.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
Source	Source	Text	Text	50	Yes	Must be one of the following ■ mine survey ■ other survey ■ digitised ■ coordinate entry ■ department records ■ planning approval ■ other	This field is for entering the source of this data. Data recorded using online tracing is to be labelled 'Digitised'. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values.
ChartDt	Chart Date	Date	Date	NA	Yes	Date format should be as follows DD/MM/YYYY	Enter the date value when this data was charted/created.
Chartor	Chartor	Text	Free Text	50	Yes	Free text. Enter the name of the author.	Enter the name of the person (e.g. author) who created this data.
AddInfo	Additional Info	Text	Free text	250	No	Free text. Describe any additional info as required	This is a non-mandatory field that allows for any additional information to be provided related to the feature.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
Endorse	Endorse	Feature status	Free text	250	No	Free text.	This is a non-mandatory field that allows author to highlight areas of uncertainty that may not meet the standards required.
Accuracy	Accuracy	Text	Text	50	Yes	Must be one of the following ■ 0-5 m ■ 5-20 m	Defines accuracy level of data. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Include details in endorsement field for any uncertainties for accuracy.
ThemeN	Theme Name	Text	Text	50	No	Final Landform Contours	This is a non-mandatory field that allows themes to be categorised for user cataloging purposes. Must match standard theme names.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
SubmsnN	Submission Name	Text	Free text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
FileN	File Name	Text	Free text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes
Provider	Provider	Text	Free text	50	No	Free text. Provider of the surveying information.	This is a non-mandatory field that allows author to identify the source of the data for cataloging purposes. Data may be sourced from various providers across a mine site (e.g. Consultant ABC).

Table 7: Project approval boundary (polygon data type)

Overview: The project approval boundary theme provides spatial information for all relevant Project Approvals that relate to the mining operation. Each project approval should be displayed in a separate polygon.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
MineN	Mine Name	Text	Text	250	Yes	Mine name should be consistent with the registered mine name from the list provided in the portal.	Select the mine name from the list provided in the portal. The mine name entered will have to correlate exactly with the mine name listed in the Mine rehabilitation portal registration page.
SiteN	Site Name	Text	Text	50	No	Free text.	This is a non-mandatory field that is useful for large mining operations with multiple sites to provide a consistent naming protocol for each site (e.g. 'South Pit'). The name attributed to a site must be identical for future reporting and comparison purposes.
PrAppNo	Project Approval Number	Text	Free Text	50	Yes	Free text. Provide the Project Approval Number or other project approval identification for the feature	All current and historical project approval boundaries should be provided with the associated project approval number provided in this field. Alternatively, provide 'existing use rights' boundary if applicable.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
PrAppDt	Project Approval Date	Date	Date	NA	No	Date format should be as follows DD/MM/YYYY	This is a non-mandatory field that should be used when the date of the project approval is known.
Source	Source	Text	Text	50	Yes	Must be one of the following: ■ mine survey ■ other survey ■ digitised ■ coordinate entry ■ department records ■ planning approval ■ other	This field is for entering the source of this data. Data recorded using online tracing is to be labelled 'Digitised'. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values.
ChartDt	Chart Date	Date	Date	NA	Yes	Date format should be as follows DD/MM/YYYY	Enter the date value when this data was charted/created.
Chartor	Chartor	Text	Free text	50	Yes	Free text. Enter the name of the author.	Enter the name of the person (e.g. author) who created this data.
AddInfo	Additional Info	Text	Free text	250	No	Free text. Describe any additional info as required	This is a non-mandatory field that allows for any additional information to be provided related to the feature.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
Endorse	Endorse	Feature status	Free text	250	No	Free text.	This is a non-mandatory field that allows the author to highlight areas of uncertainty that may not meet the standards required.
Accuracy	Accuracy	Text	Text	50	Yes	Must be one of the following ■ 0-5m ■ 5-20m	Defines accuracy level of data. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Include details in endorsement field for any uncertainties for accuracy.
ThemeN	Theme Name	Text	Text	50	No	Project Approval Boundary	This is a non-mandatory field that allows themes to be categorised for user cataloging purposes. Must match standard theme names.
SubmsnN	Submission Name	Text	Free text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
FileN	File Name	Text	Free text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes
Provider	Provider	Text	Free text	50	No	Free text. Provider of the surveying information.	This is a non-mandatory field that allows author to identify the source of the data for cataloging purposes.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							Data may be sourced from various providers across a mine site e.g. Consultant ABC.

Table 8: Forecast data – Year 1 (polygon data type)

Overview: The forecast data – Year 1 theme provides spatial information for the forecast disturbance and rehabilitation areas over the next 12-month period as documented in the forward program.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
MineN	Mine Name	Text	Text	250	Yes	Mine name should be consistent with the registered mine name from the list provided in the portal.	Select the mine name from the list provided in the portal. The mine name entered will have to correlate exactly with the mine name listed in the Mine rehabilitation portal registration page.
SiteN	Site Name	Text	Text	50	No	Free text.	This is a non-mandatory field that is useful for large mining operations with multiple sites provide a consistent naming protocol for each site (e.g. 'South Pit'). The name attributed to a site must be identical for future reporting and comparison purposes.
ForcstA	Forecast Area	Text	Text	50	Yes	Must be one of the following: ■ Forecast disturbance	You will not enter any other value apart from the mentioned values under the 'Required

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
						■ Forecast land prepared for rehabilitation	Values' as the application will discard any record not having any one of the mentioned values. Forecast disturbance: New areas of proposed disturbance. Forecast land prepared for rehabilitation: New areas of proposed land prepared for rehabilitation. This area is to include a proposed change from disturbance to rehabilitation. These areas may cover forecast disturbance. Please refer to the Schema Requirements for Forecast data themes (Year 1, 2 and 3) provided in this guideline for further guidance on application of forecast areas.
Source	Source	Text	Text	50	Yes	Must be one of the following: ■ mine survey	This field is for entering the source of this data.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
						■ other survey ■ digitised ■ coordinate entry ■ department records ■ planning approval ■ other	Data recorded using online tracing is to be labelled 'Digitised'. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values.
ChartDt	Chart Date	Date	Date	NA	Yes	Date format should be as follows DD/MM/YYYY	Enter the date value when this data was charted/created.
Chartor	Chartor	Text	Free Text	50	Yes	Free text. Enter the name of the author.	Enter the name of the person (e.g. author) who created this data.
AddInfo	Additional Info	Text	Text	250	No	Free text. Describe any additional info as required	This is a non-mandatory field that allows for any additional information to be provided related to the feature.
Endorse	Endorse	Feature status	Free text	250	No	Free text.	This is a non-mandatory field that allows author to highlight areas of uncertainty that may

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							not meet the standards required.
Accuracy	Accuracy	Text	Text	50	Yes	Must be one of the following ■ 0-5m ■ 5-20m	Defines accuracy level of data. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Include details in endorsement field for any uncertainties for accuracy.
ThemeN	Theme Name	Text	Text	50	No	Forecast Data	This is a non-mandatory field that allows themes to be categorised for user cataloging purposes. Must match standard theme names.
SubmsnN	Submission Name	Text	Text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
FileN	File Name	Text	Text	50	No	Free text.	This is a non-mandatory field v may be useful for user cataloging purposes.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
Provider	Provider	Text	Free text	50	No	Free text. Provider of the surveying information.	This is a non-mandatory field that allows author to identify the source of the data for cataloging purposes. Data may be sourced from various providers across a mine site e.g. Consultant ABC.

Table 9: Forecast data – Year 2 (polygon data type)

Overview: The forecast data – year 2 theme provides spatial information for the forecast disturbance and rehabilitation areas in the period 12 - 24 months from the annual reporting date. This is indicative data only.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
MineN	Mine Name	Text	Text	250	Yes	Mine name should be consistent with the registered mine name from the list provided in the portal.	Select the mine name from the list provided in the portal. The mine name entered will have to correlate exactly with the mine name listed in the Mine rehabilitation portal registration page.
SiteN	Site Name	Text	Text	50	No	Free text.	This is a non-mandatory field that is useful for large mining operations with multiple sites to provide a consistent naming protocol for each site (e.g. 'South Pit'). The name attributed to a site must be identical for future reporting and comparison purposes.
ForcstA	Forecast Area	Text	Text	50	Yes	Must be one of the following: ■ Forecast disturbance	You will not enter any other value apart from the mentioned values under the 'Required

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
						■ Forecast land prepared for rehabilitation	Values' as the application will discard any record not having any one of the mentioned values. Forecast disturbance: New areas of proposed disturbance. Forecast land prepared for rehabilitation: New areas of proposed land prepared for rehabilitation. This area is to include a proposed change from disturbance to rehabilitation. These areas may cover forecast disturbance. Please refer to the Schema Requirements for forecast data themes (Year 1, 2 and 3) provided in this guideline for further guidance on application of Forecast Areas.
Source	Source	Text	Text	50	Yes	Must be one of the following ■ mine survey	This field is for entering the source of this data.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
						■ other survey ■ digitised ■ coordinate entry ■ department records ■ planning approval ■ other	Data recorded using online tracing is to be labelled 'Digitised'. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values.
ChartDt	Chart Date	Date	Date	NA	Yes	Date format should be as follows DD/MM/YYYY	Enter the date value when this data was charted/created.
Chartor	Chartor	Text	Free Text	50	Yes	Free text. Enter the name of the author.	Enter the name of the person (e.g. author) who created this data.
AddInfo	Additional Info	Text	Text	250	No	Free text. Describe any additional info as required	This is a non-mandatory field that allows for any additional information to be provided related to the feature.
Endorse	Endorse	Feature status	Free text	250	No	Free text.	This is a non-mandatory field that allows the author to highlight areas of uncertainty

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							that may not meet the standards required.
Accuracy	Accuracy	Text	Text	50	Yes	Must be one of the following ■ 0-5 m ■ 5-20 m	Defines accuracy level of data. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Include details in endorsement field for any uncertainties for accuracy.
ThemeN	Theme Name	Text	Text	50	No	Forecast Data	This is a non-mandatory field that allows themes to be categorised for user cataloging purposes. Must match standard theme names.
SubmsnN	Submission Name	Text	Text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
FileN	File Name	Text	Text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
Provider	Provider	Text	Free text	50	No	Free text. Provider of the surveying information.	This is a non-mandatory field that allows the author to identify the source of the data for cataloging purposes. Data may be sourced from various providers across a mine site (e.g. Consultant ABC).

Table 10: Forecast data – Year 3 (polygon data type)

Overview: The forecast data – year 3 theme provides spatial information for the forecast disturbance and rehabilitation areas in the period 24 - 36 months from the annual reporting date. This is indicative data only.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
MineN	Mine Name	Text	Text	250	Yes	Mine name should be consistent with the registered mine name from the list provided in the portal.	Select the mine name from the list provided in the portal. The mine name entered will have to correlate exactly with the mine name listed in the Mine rehabilitation portal registration page.
SiteN	Site Name	Text	Text	50	No	Free text.	This is a non-mandatory field that is useful for large mining operations with multiple sites to provide a consistent naming protocol for each site e.g. 'South Pit'. Name must be identical for future reporting purposes.
ForcstA	Forecast Area	Text	Text	50	Yes	Must be one of the following ■ Forecast disturbance ■ Forecast land prepared for rehabilitation	You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Forecast disturbance: New areas of proposed disturbance. Forecast land prepared for rehabilitation:

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
							New areas of proposed land prepared for rehabilitation. This area is to include a proposed change from disturbance to rehabilitation. These areas may cover forecast disturbance. Please refer to the Schema Requirements for Forecast data themes (Year 1, 2 and 3) provided in this guideline for further guidance on application of Forecast Areas.
Source	Source	Text	Text	50	Yes	Must be one of the following: ■ Mine survey ■ Other survey ■ Digitised ■ Coordinate entry ■ Department records ■ Planning Approval ■ Other	This field is for entering the source of this data. Data recorded using online tracing is to be labels 'Digitised'. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values.
ChartDt	Chart Date	Date	Date	NA	Yes	Date format should be as follows DD/MM/YYYY	Enter the date value when this data was charted/created.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
Chartor	Chartor	Text	Free Text	50	Yes	Free text. Enter the name of the author.	Enter the name of the person (e.g. author) who created this data.
AddInfo	Additional Info	Text	Text	250	No	Free text with additional information	This is a non-mandatory field that allows for any additional information to be provided related to the feature.
Endorse	Endorse	Feature status	Free text	250	No	Free text.	This is a non-mandatory field that allows author to highlight areas of uncertainty that may not meet the standards required.
Accuracy	Accuracy	Text	Text	50	Yes	Must be one of the following: ■ 0-5 m ■ 5-20 m	Defines accuracy level of data. You will not enter any other value apart from the mentioned values under the 'Required Values' as the application will discard any record not having any one of the mentioned values. Include details in endorsement field for any uncertainties for accuracy.
ThemeN	Theme Name	Text	Text	50	No	Forecast Data	This is a non-mandatory field that allows themes to be categorised for user cataloging purposes. Must match standard theme names.

FIELD NAME	ALIAS	DATA TYPE	DATA FORMAT	FIELD LENGTH	MANDATORY	REQUIRED VALUES/DOMAIN LISTS	DESCRIPTION
SubmsnN	Submission Name	Text	Text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
FileN	File Name	Text	Text	50	No	Free text.	This is a non-mandatory field that may be useful for user cataloging purposes.
Provider	Provider	Text	Free text	50	No	Free text. Provider of the surveying information.	This is a non-mandatory field that allows author to identify the source of the data for cataloging purposes. Data may be sourced from various providers across a mine site (e.g. Consultant ABC).